

WYNOOCHEE DAM  
Section 1135 Fish Restoration Project  
Statement of Financial Capability

City of Tacoma, Department of Public Utilities, Light Division

**BACKGROUND**

The City of Tacoma, Department of Public Utilities, Light Division (City), local sponsor for the Wynoochee Dam Fish Restoration Project is capable of meeting cost sharing and other obligations as required under the terms of the Project Cooperation Agreement. Funding for this program comes from a Fish Trust Fund, Account 4706, held by the City for the Washington Department of Fish and Wildlife and City revenues. The City's obligation for the total project is estimated to be \$1,167,000 which is the sum of both in-kind services and cash payments to the U.S. Army Corps of Engineers (Corps).

**SPONSOR CONTRIBUTIONS**

The City's contributions are a combination of services provided by the City and listed in Exhibit 2 of the Project Cooperation Agreement (In-Kind Services) and cash payment to be made to the Corps. The in-kind services total \$1,014,000 and cash payments total \$153,000. The City will be using money from the Fish Trust Fund held by the City for the Washington Department of Fish and Wildlife (WDFW) to fund the cash payments, cover in-kind services accrued after October 1, 1996, and cover future operations and maintenance requirements of the WDFW until the fund is depleted. The balance of the Fish Trust Fund (#4706) as of August 31, 1997, is \$1,373,848.24 of which approximately \$153,000 will be used for the capital construction cash payment to the Corps and \$580,000 will be used for the in-kind services spent after October 1, 1996. The purpose of the Fish Trust Fund was to finance both construction of the fish restoration program and its operations and maintenance. Thus, the approximate \$641,000 remaining in the fund plus interest accrued (estimated at \$134,000 by Jan 1999) will be used to fund operations and maintenance of the supplementation pond portion of the project until it is depleted. The City will provide continued funding from other sources to the State for the operations and maintenance of the supplementation pond portion of the project.

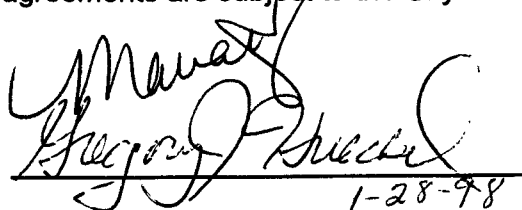
**ADDITIONAL AGREEMENTS**

An agreement will be signed between the City and the Department of Fish and Wildlife releasing the Fish Trust Fund to the City for use in funding the local sponsor contributions and for providing funding to the Washington Department of Fish and Wildlife for maintenance and operations of the supplementation ponds through the year 2037. The State makes no financial commitment to this project other than release of the Fish Trust Fund. Signing of this exhibit is evidence of intent by the City and State to complete this project. Final agreements are subject to the City of Tacoma, Public Utility Board approval.



Steven J. Klein  
Light Superintendent  
City of Tacoma, Dept of Public Utilities  
**Approved as to form & legality:**

12/26/97

  
Asst. City Attorney  
1-28-98

Washington Department of Fish and Wildlife  
Maria Hug  
Contracts Officer

WYNOOCHEE DAM  
Section 1135 Fish Restoration Project  
Statement of In-Kind Services

City of Tacoma, Department of Public Utilities, Light Division

The following is a breakdown of in-kind services already performed and to be performed by the City for implementation of the fish restoration project. No charges are listed for any work done by City personnel prior to October 1, 1996. The charges shown prior to this date are all based on billings to the City. All City labor performed after October 1, 1996 will be charged to accounts established for the fish restoration project.

6/92-3/93 Preliminary Engineering	\$14,292.76
3-93-12/93 Preliminary Engineering	\$226,161.16
1994 Preliminary Engineering	\$72,356.26
Const of Powerhouse Piping and Intake for Ponds	\$19,404.00
Const of Piping to Hatchery Vicinity	\$25,936.68
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Const of Storage Building (3/8 of total cost)	\$44,697.92
1995 Hydroacoustic Testing of Fish Passage	\$11,331.00
1995 Mtg with COE and Al Solonsky	\$669.05
1996 Mtg with COE and Al Solonsky	\$547.80
1997 Intake Modifications and Testing Program	\$200,100.99
Engineering, Plan Review, License Amendment	*\$100,000.00
Control System Design and Installation	*\$60,000.00
Design of Wyn Supplementation Pond System	*\$45,000.00
Design & Const of Bingham Hatchery Improvement	*\$155,000.00
Evaluation of Completed Wyn Bypass System	*\$20,000.00
 TOTAL IN-KIND SERVICES	 *\$1,014,362.62

\* Based on current best estimates for future work.

WYNOOCHEE DAM  
Section 1135 Fish Restoration Project  
Letter of Understanding  
Between

City of Tacoma, Department of Public Utilities, Light Division  
and Washington Department of Fish and Wildlife

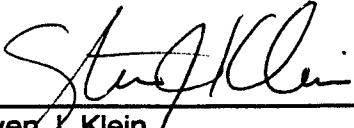

The City of Tacoma, Department of Public Utilities, Light Division (City), has given its intent to become local sponsor for the Wynoochee Dam Fish Restoration Project to the US Army Corps of Engineers. Funding for the program comes from a Fish Trust Fund, Account 4706, held by the City for the Washington Department of Fish and Wildlife (WDFW) and City revenues. The local sponsor obligation for the total project is estimated to be \$1,167,000 which is the sum of both in-kind services and cash payments to the U.S. Army Corps of Engineers (Corps). Details of the sponsor contribution are contained in the Statement of Financial Capability signed by the City and WDFW.

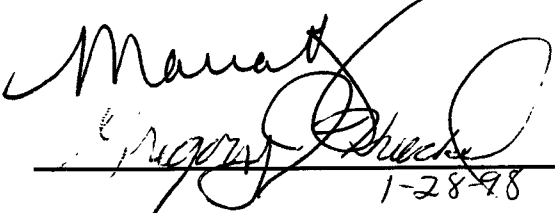
The purpose of this letter is to identify the primary elements of an agreement to be negotiated and entered into by the City and the WDFW. As of the date of this letter, the parties agree that they intend to enter an agreement which contains the following elements:

- The purpose of the agreement is to identify the obligations and responsibilities of the parties as it relates to the Corps of Engineers, Wynoochee Fish Restoration Program.
- WDFW will release to the City, the Fish Trust Fund, Account 4706, held by the City on behalf of the WDFW, totaling \$1,373,848.24 as of August 31, 1997. The City in return will provide local sponsor funding not exceeding \$1,167,000 for the project consisting of in-kind services and cash payments to the Corps. Contained in the local sponsor funding are moneys for design, construction and evaluation services planned to be performed by WDFW.
- The City will also provide annual cash payments to the WDFW through 2037 matching the attached Exhibit A. The WDFW will provide operation and maintenance for the supplementation pond portion of the Corps fish restoration program in return for those cash payments.

Both parties agree to work cooperatively to achieve a workable, on budget capital construction program and to achieve a cost effective cooperative maintenance program.

Signing of this letter is evidence of intent by the City and State to complete this project and future agreement. Final agreements are subject to the City of Tacoma, Public Utility Board approval.

  
Steven J. Klein  
Light Superintendent  
City of Tacoma, Dept of Public Utilities  
Approved as to form & legality:  
12/9/97   
Chief Asst. City Attorney

  
1-28-98  
Washington Department of Fish and Wildlife  
Maria Hug  
Contracts Officer

## EXHIBIT A

### CASH FLOW FUNDING FOR O&M OF SUPPLEMENTATION PONDS

<u>Year</u>	<u>O&amp;M</u>	<u>Vehicle</u> <u>Purchase</u>	<u>Year</u>	<u>O&amp;M</u>	<u>Vehicle</u> <u>Purchase</u>
	(dollars)	(dollars)		(dollars)	(dollars)
1999	0	0	2019	(83,093)	0
2000	(68,779)	(20,812)	2020	(83,923)	0
2001	(69,467)	0	2021	(84,763)	(25,649)
2002	(70,161)	0	2022	(85,610)	0
2003	(70,863)	0	2023	(86,466)	0
2004	(71,572)	0	2024	(87,331)	
2005	(72,287)	0	2025	(88,204)	0
2006	(73,010)	0	2026	(89,086)	0
2007	(73,740)	(22,313)	2027	(89,977)	0
2008	(74,478)	0	2028	(90,877)	(27,499)
2009	(75,223)	0	2029	(91,786)	0
2010	(75,975)	0	2030	(92,704)	0
2011	(76,735)	0	2031	(93,631)	0
2012	(77,502)	0	2032	(94,567)	0
2013	(78,277)	0	2033	(95,513)	0
2014	(79,060)	(23,923)	2034	(96,468)	0
2015	(79,850)	0	2035	(97,432)	(29,482)
2016	(80,649)	0	2036	(98,407)	0
2017	(81,455)	0	2037	(99,391)	0
2018	(82,270)	0			



UNITED STATES OF AMERICA  
FEDERAL ENERGY REGULATORY COMMISSIONThe Cities of Aberdeen and )  
Tacoma, Washington )

Project No. 6842-089

ORDER MODIFYING AND APPROVING TEMPORARY  
MODIFICATION OF ARTICLE 406  
(Issued May 21, 1997)

On April 23, 1997, the Cities of Aberdeen and Tacoma, Washington (licensees), filed a request to temporarily modify article 406 for the Wynoochee Dam Hydroelectric Project. The project is located on the Wynoochee River in Grays Harbor County, Washington.

Article 406 states, in part, that the licensees shall annually cease project operation from April 15 through June 30 in order to provide passage for outmigrating salmonid smolts. Further, the schedule may be temporarily modified, for short periods, upon mutual agreement among the licensees, the U.S. Army Corps of Engineers (Corps), the Washington Department of Fish and Wildlife (WDFW), the U.S. Fish and Wildlife Service (FWS), the National Marine Fisheries Service (NMFS), the Quinault Indian Nation (Nation), and the Confederated Chehalis Tribes (Tribes).

## LICENSEES' REQUEST

The licensees requested that the project be permitted to operate for six to seven, 48-hour periods during the 77-day shutdown. The licensees proposed to temporarily operate the project, during the shutdown period, in order to conduct an entrainment study at the newly modified intake structure.

By letter dated March 6, 1997, the licensees provided a study plan to the resource agencies, Nation and Tribes for their review. The licensees requested any comments by March 31 and stated that no comments by then would indicate concurrence with the plan.

## AGENCY COMMENTS

By letter dated March 26, 1997, the FWS stated their approval of the study plan and concurrence with the licensees' proposal to temporarily modify article 406 to conduct entrainment tests. By letter dated March 28, 1997, the NMFS also concurred with the licensees' request provided the operation conforms to that proposed in the study plan.

The licensees stated that the Corps and WDFW are on the Wynoochee Technical Advisory Committee (WTAC) that cooperatively

Project No. 6842-089

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developed the study plan and gave verbal approval for the temporary modification of article 406. The licensees added that the Nation and Tribes did not provide any comments.

## DISCUSSION AND CONCLUSION

The Corps proposed an Eicher screen in the penstock of the Wynoochee Hydroelectric Project to protect outmigrating salmonid smolts. Installation of the screen is part of the Wynoochee River Fish Restoration Program. The licensees proposed to install the equipment, conduct data analysis, and prepare a report as part of the study plan developed by the WTAC. To evaluate entrainment of salmonid smolts, at the modified intake, the licensees need to operate the project during the outmigration season when the project is normally required to be shutdown.

The licensees requested that they be permitted to operate the single Kaplan turbine for six to seven, 48-hour, sampling periods in order to test fish entrainment using two techniques. The first technique would use remote underwater cameras to collect visual records of fish as they pass through the modified fish passage system. The second method uses a hydroacoustic monitoring system, along with tailrace netting, to quantify total fish passage, delay, health and species composition.

The number of sample trials proposed by the licensees appears reasonable to obtain a useful data set for statistical analyses without exposing the migrating smolts to excessive testing. The licensees proposed to initiate testing, on a weekly basis, starting May 15 to June 30, 1997. The licensees proposed to prepare a final report detailing the results and conclusions of the study.

Article 406 provides for the modification of the annual shutdown period for operating emergencies beyond the control of the licensees and for unanticipated events such as the one described herein. To evaluate the behavior of salmonid smolts passing through the Wynoochee Project and the effectiveness of the modified intake structure for preventing entrainment, article 406 should be temporarily modified to allow turbine operation for six to seven, 48-hour periods during spring outmigration.

The Director orders:

(A) The Cities of Aberdeen and Tacoma, Washington (licensees), request, filed April 23, 1997, to temporarily modify article 406 of the Wynoochee Dam Hydroelectric Project, for six to seven, 48-hour periods during May 15 to June 30, is approved.

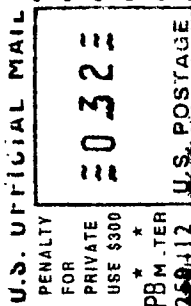
(B) This order constitutes final agency action. Requests for rehearing by the Commission may be filed within 30 days of the date of issuance of this order, pursuant to 18 C.F.R. § 385.713.



Kevin P. Madden  
Acting Director  
Office of Hydropower Licensing

FEDERAL ENERGY REGULATORY COMMISSION  
WASHINGTON, D.C. 20426

OFFICIAL BUSINESS  
PENALTY FOR PRIVATE USE: \$300



*David L. Mudd*

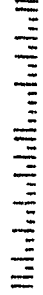
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DIRECTOR, DEPT. OF FISH & WILDLIFE  
WASHINGTON, DEPT. OF FISH & WILDLIFE  
600 CAPITOL WAY NORTH  
OLYMPIA, WA 98504-1091

RECEIVED

MAY 30 1997

WDFW HABITAT MGMT



UNITED STATES OF AMERICA  
FEDERAL ENERGY REGULATORY COMMISSION

City of Aberdeen ) Project No. 6842-082  
City of Tacoma )

## ORDER AMENDING LICENSE

(Issued February 24, 1997)

On December 16, 1996, the licensees for the Wynoochee Dam Project filed a request to amend their license 1/ to change the deadline for filing the annual monitoring reports required under license article 419 from March 1 to May 1. 2/ The project is located on the Wynoochee River in Grays Harbor County, Washington.

Article 419 of the license requires the licensees to submit annual monitoring reports to the Commission by March 1. Article 419 requires the licensees to prepare the reports after consultation with the appropriate agencies and to give the agencies at least 30 days to review and comment on the reports. The licensees are to include in the annual monitoring reports documentation of consultation with the agencies and copies of any agency comments.

The licensees state that previously the monitoring reports were not filed with the Commission, but were submitted to the appropriate agencies by March 1 of each year as stipulated in a Memorandum of Agreement between the licensees and the U.S. Army Corps of Engineers, dated February 18, 1994. 3/ The licensees state the March 1 submittal date to the agencies has not changed, but the 30-day consultation period has been added. The licensees state that a May 1 deadline would provide time for the licensees to consult with the agencies, receive comments from the agencies, and include any comments with the monitoring reports that are to be filed with the Commission.

The reason advanced by the licensees in support of the requested amendment is reasonable and the request will be approved.

1/ 40 FERC ¶ 62,316 (1987).

2/ Article 419 was added to the license by the Order Amending License and Revising Annual Charges, issued on March 5, 1996 (74 FERC ¶ 62,118).

3/ Special Agreement on Mitigation Responsibilities Between the Cities of Aberdeen and Tacoma and the Department of the Army for the Wynoochee Lake Project, dated February 18, 1994.

Project No. 6842-082

-2-

The Director orders:

(A) The deadline to submit the annual monitoring reports to the Commission in accordance with license article 419 is changed from "March 1" to "May 1".

(B) This order constitutes final agency action. Requests for rehearing by the Commission may be filed within 30 days of the date of issuance of this order, pursuant to 18 C.F.R. § 386.713.

  
Kevin P. Madden  
Acting Director  
Office of Hydropower Licensing



Mark Crisson  
Director

3628 South 35th Street  
P.O. Box 11007  
Tacoma, WA 98411-0007

Divisions  
Light  
Water  
Belt Line

cc: Guffin  
C. Johnson  
Frymire

October 9, 1996

Mr. David Mudd  
Habitat Management  
Washington Department of Fish and Wildlife  
600 Capital Way North  
Olympia, Washington 98501-1091

Dear Mr. Mudd:

Subject: Wynoochee, 1135 Fish Restoration Program

Enclosed are three documents to be transmitted on to Bruce Sexauer at the Corps. First is our letter of commitment which you may want a copy of for your files. Second is the Statement of Financial Capability which has a slot for signature by the WDFW. Third is the Statement of In-Kind Services you may also want a copy of. You should be aware that we may not jointly exceed 80% of the local sponsor contribution with in-kind services. We are running very near this limit and will have to watch the numbers closely as the project unfolds.

If you have any questions, please call me at (206) 502-8316.

Sincerely,

A handwritten signature in black ink, appearing to read 'S. H. Fischer'.

S. H. Fischer, Senior Special Projects Engineer  
Light Division

RECEIVED  
OCT 14 1996  
WDFW HABITAT MGMT



Mark Crisson  
Director

3628 South 35th Street  
P.O. Box 11007  
Tacoma, WA 98411-0007

Divisions  
Light  
Water  
Belt Line

October 11, 1996

Colonel Donald Wynn  
District Engineer  
Seattle District Army Corps of Engineers  
4735 East Marginal Way S  
Seattle, Washington 98134

Dear Colonel Wynn:

This letter provides the City of Tacoma, Department of Public Utilities, Light Division, (City) acknowledgment of the Project Modification Report and Environmental Assessment for the Wynoochee Dam Section 1135 Fish Restoration Project at Wynoochee Dam, Washington. It also provides intent that the City will assume the responsibility of local sponsor for this project.

The draft Project Modification Report has been reviewed by the City. We agree to cooperate with the Corps proposed modifications to Wynoochee Dam. The Eicher screen fish bypass, supplementation ponds, modifications to the fish trap, modified spring refill curve and target flows at Save Creek are components of the program.

The details contained in the enclosed Project Cooperation Agreement have been discussed by the City. Approval by our Public Utility Board will, ultimately, be required before execution. The 25 percent cost share required for this project will be available as indicated in our Statement of Financial Capability.

We look forward to working with you on this endeavor.

Sincerely,

A handwritten signature in black ink, appearing to read 'Steven J. Klein', written over a large, stylized flourish.

Steven J. Klein  
Light Superintendent

**WYNOOCHEE DAM**  
**Section 1135 Fish Restoration Project**  
**Statement of Financial Capability**

City of Tacoma, Department of Public Utilities, Light Division

**BACKGROUND**

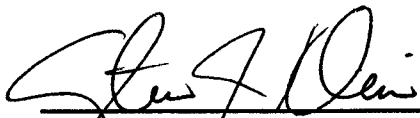
The City of Tacoma, Department of Public Utilities, Light Division (City), local sponsor for the Wynoochee Dam Fish Restoration Project is capable of meeting cost sharing and other obligations as required under the terms of the Project Cooperation Agreement. Funding for this program comes from a Fish Trust Fund, Account 4706, held by the City for the Washington Department of Fish and Wildlife and City revenues. The City's obligation for the total project is estimated to be \$1,089,000 which is the sum of both in-kind services and cash payments to the U.S. Army Corps of Engineers.

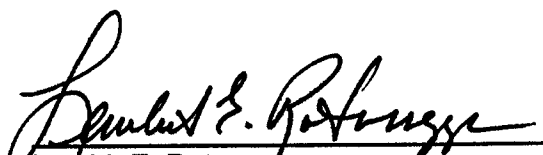
**SPONSOR CONTRIBUTIONS**

The City's contributions are a combination of services provided by the City and listed in Exhibit 2 of the Project Cooperation Agreement (In-Kind Services) and money from the Fish Trust Fund held by the City for the Washington Department of Fish and Wildlife. The balance of the Fish Trust Fund (#4706) as of September 4, 1996, is \$1,318,041.99 of which approximately \$655,000 will be used for the capital construction requirements. The remaining \$434,000 local sponsor obligation is previously spent in-kind services provided by the City. The purpose of the Fish Trust Fund was to finance both construction of the fish restoration program and its operations and maintenance. Thus, moneys remaining in the fund will be used to partially fund operations and maintenance of the supplementation pond portion of the project. Other operation and maintenance costs will be funded from City revenues.

**ADDITIONAL AGREEMENTS**

An agreement will be signed between the City and the Department of Fish and Wildlife releasing the Fish Trust Fund to the City for use in funding the local sponsor contributions and for providing funding to the Washington Department of Fish and Wildlife for maintenance and operations of the supplementation ponds through the year 2037. The State makes no financial commitment to this project other than release of the Fish Trust Fund. Signing of this exhibit is evidence of intent by the City and State to complete this project.

  
\_\_\_\_\_  
Steven J. Klein  
Light Superintendent  
City of Tacoma, Dept of Public Utilities

  
\_\_\_\_\_  
Lembit E. Ratassepp  
Comptroller  
Washington Department of Fish and Wildlife

**WYNOOCHEE DAM  
Section 1135 Fish Restoration Project  
Statement of In-Kind Services**

**City of Tacoma, Department of Public Utilities, Light Division**

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Construction of Rearing Ponds and Bingham Hatch	*\$155,000.00
 TOTAL IN-KIND SERVICES	 *\$794,261.63

\* Based on current best estimates for future work.

UNITED STATES OF AMERICA  
FEDERAL ENERGY REGULATORY COMMISSION

City of Aberdeen, Washington and  
City of Tacoma, Washington

Project No. 6842-060  
Washington

ORDER AMENDING LICENSE AND REVISING ANNUAL CHARGES

( Issued March 5, 1996 )

On January 3, 1994, the City of Aberdeen, Washington and the City of Tacoma, Washington (licensees) filed an application for amendment of license for the Wynoochee Project, FERC No. 6842. The application was supplemented on February 28 and June 17, 1994, and on January 23, June 21, August 14, and December 4, 1995.

The licensees propose amending the license as follows: (1) revise the project boundary to include the Wynoochee Dam and Reservoir, but to exclude the licensed transmission line corridor; (2) waive certain annual charges; (3) add two new articles relating to project operation and environmental mitigation responsibilities; (4) delete or modify certain articles to reflect changes in the U.S. Army Corps of Engineers' (Corps) responsibilities; and (5) revise the project's authorized installed capacity from 10.8 MW to 12.8 MW.

An amendment of license is necessary because of Congressional legislation that authorized fee title transfer of the Wynoochee Dam from the Corps to one of the licensees, the City of Aberdeen (City).<sup>1</sup> According to this legislation, the City now owns, operates, and maintains the dam. The licensees intend to operate the dam and its hydroelectric facilities as one unit of development.

The Commission prepared an Environmental Assessment (EA) for the licensees' application. The EA is attached to this order. In summary, the EA finds that the licensees' application will have little or no environmental impacts on the project's water quality, fishery, terrestrial, aesthetic, recreational, and cultural resources.<sup>2</sup>

<sup>1</sup> Public Law 101-640 [S. 2740], November 28, 1990, Water Resources Development Act of 1990.

<sup>2</sup> Environmental Assessment, Application to Include the Wynoochee Dam and Reservoir in the Project Boundary, Wynoochee Hydroelectric Project No. 6842, Federal Energy Regulatory Commission. This document can be obtained from the Commission's public files for this project.

Background

Project Construction and Operation

The Corps built the Wynoochee Dam which was completed in 1973. The dam is on the Wynoochee River in Grays Harbor County, Washington. The Corps built the dam for the purposes of flood control, water supply, irrigation, recreation, and fish enhancement. The 175-foot high dam is located at river mile 51.8 above the confluence with the Chehalis River. The Wynoochee Reservoir at its full pool elevation of 800 feet mean sea level extends about 4.4 miles upstream from the dam, has a surface area of 1126 acres, and a gross storage capacity of 69,405 acre-feet.

On September 9, 1987, the Commission issued a license to the licensees to add hydroelectric facilities to the dam.<sup>3</sup> Article 308 of the license requires the licensees to operate the hydroelectric facilities in a manner acceptable to the Corps. When the license was issued only the hydroelectric facilities were included in the FERC project boundary. The dam and reservoir were not included in the project boundary because they were owned and operated by the Corps.

On July 1, 1990, operation of the Wynoochee Dam was transferred from the Corps to the City, on an experimental basis, pursuant to the Water Resources Development Act of 1988. This Act authorized the City to assume responsibilities for operation, maintenance, rehabilitation, and repair of the dam allowing the licensees to operate the dam and its hydroelectric facilities as a single unit of development.

On September 20, 1993, the Wynoochee Dam and its appurtenant facilities were transferred by fee title from the Corps to the City pursuant to the Water Resources Development Act of 1990. This Act authorized the City to buy the dam from the federal government with restrictions requiring the licensees to continue to operate the dam in conformance with the Corps' regulations and the dam's original project purposes. The Corps prepared a Final Environmental Assessment (FEA) for its action of transferring the dam to the City in compliance with the National Environmental

<sup>3</sup> 40 FERC ¶ 62,316. The Commission issued an environmental assessment for the license dated August 6, 1987 entitled "Wynoochee Dam Hydroelectric Project - Environmental Assessment, Division of Environmental Analysis, Office of Hydropower Licensing, Federal Energy Regulatory Commission." This document can be obtained from the Commission's public files for this project.



Policy Act.<sup>4</sup> In summary, the FEA found that fee title transfer of the dam would have no or only minor environmental impacts. No changes would be made to the dam's structures or operation. The dam would continue to be operated according to regulations prescribed by the Corps. The FEA concluded that transferring the dam would not cause significant impacts to water quality, streamflow, vegetation, wildlife, aquatic, cultural, and socioeconomic resources.

The licensees' current application to include the dam and reservoir in the project boundary is the last step in consolidating operations of the dam and hydroelectric facilities. In their application, the licensees do not propose changing project structures or operations. No ground-disturbing activities would occur. The project will continue to be operated according to constraints set by the Corps.

#### Existing Environmental Mitigation

##### Fishery Mitigation at the Wynoochee Dam

The Wynoochee Dam blocks anadromous fish migration on the Wynoochee River. Anadromous fish which spawn in the Wynoochee River and its tributaries include coho, chum, and spring and fall chinook salmon; steelhead and sea-run cutthroat trout; and Dolly Varden. Resident gamefish include cutthroat and rainbow trout, whitefish, and Dolly Varden. Of these species, coho and spring chinook salmon, and steelhead and sea-run cutthroat trout, make use of spawning habitat upstream of the dam. Prior to completion of the dam in 1973 approximately 1,500 coho salmon, 1,950 steelhead, and 455 cutthroat trout spawned in the 5.4 miles of river upstream of the dam. On July 25, 1995 (60 FR 38011), coho salmon were listed as a candidate species for the southwest-Washington Lower Columbia River under the Endangered Species Act. The Wynoochee Dam and Reservoir are encompassed under this listing.

As mitigation for impacts to anadromous fish, the Corps constructed a barrier dam and fish trap facilities on the Wynoochee River at river mile 49.6. In addition, as mitigation for the reservoir's inundation of former steelhead spawning habitat, the Corps obtained funds to expand the Washington Department of Fish and Wildlife's (WDFW) Aberdeen Hatchery. Funding was originally addressed by the Flood Control Act of 1962 (Public Law 87-876), later amended by Public Law 93-251.

<sup>4</sup> Wynoochee Lake Project, Fee-Title Transfer to the City of Aberdeen, Grays Harbor County, Washington, Final Environmental Assessment, issued July 9, 1993.

The Wynoochee Dam's fish trap facilities include: an attraction water intake chamber, entrance pool, intermediate pool, telescoping weir gate, holding pool, fish crowder, fish transfer hooper and fish-haul truck. Coho and spring chinook salmon, and steelhead and cutthroat trout migrating up the river are blocked by the barrier dam, collected at the fish trap, and hauled by truck around the dam to be released back into the Wynoochee River upstream. Downstream migrating smolts pass through the dam by way of the dam's multilevel low-flow outlets. To prevent the entrainment of smolts in the hydroelectric facilities, the FERC project license (article 406) requires the licensees to shut-down the hydroelectric units from April 15 through June 30 yearly. This is the period during which most smolts are migrating. Smolts continue to pass through the dam's low-flow outlets as they did before the hydroelectric facilities were added to the dam.

Despite operation of the fish passage facilities, independent studies conducted by the Corps and the state show a decline in anadromous fish runs since construction of the dam. In addition, separate studies conducted by the WDFW and the University of Washington indicate that coho smolts experience a 14 percent mortality rate and steelhead and cutthroat smolts experience a 24 percent mortality rate when passing downstream through the dam. Residualization of anadromous fish (failure to pass through the dam) in the reservoir may be causing additional losses.

To mitigate the dam's continuing impacts to anadromous fish, the Corps is conducting studies under section 1135 of the Water Resources Development Act of 1986 for a fish restoration project at the Wynoochee Dam. The Corps has established a Fish Restoration Technical Committee made up of representatives from the Corps, WDFW, National Marine Fisheries Service, U.S. Fish and Wildlife Service, and the licensees. The Confederated Chehalis Tribes and the Quinault Indian Nation are invited to attend. The licensees maintain in trust approximately \$1.2 million dollars which was originally obtained for the construction, operation, and maintenance of a hatchery at the Wynoochee Dam. These funds are invested in securities permitted by the laws of the state of Washington, and are accruing interest, and will be available for the finalized provisions of the section 1135 fish restoration program. Under the agreement establishing the trust, the WDFW controls disbursements from the trust. Under the terms of an "Agreement for Mitigation and Enhancement at the Wynoochee Dam" between the licensees, the Confederated Chehalis Tribes, the Quinault Indian Nation, and the WDFW, the licensees (City of Tacoma) agree to contribute up to \$90,000 to complete section 1135 feasibility study tasks.

The Fish Restoration Technical Committee is currently analyzing several proposals to mitigate the dam's continued impacts to anadromous fish. Proposals include installation of an Eicher Screen, fish supplementation ponds, flow modifications through the dam, modifications to the fish trap, modifications to the temperature control panels on the hydropower intake, and modifications to the spring rule curve. Under phase I of the section 1135 fish restoration program, wet well tests were conducted to test the feasibility of installing an Eicher Screen on the hydroelectric project's penstock. Initial testing shows that an Eicher Screen would not be effective. The Fish Restoration Technical Committee is studying other mitigation alternatives for possible feasibility and effectiveness testing.

#### Recreation at the Wynoochee Dam

The Wynoochee Reservoir is used for recreation. The Corps built the following public recreation facilities at the dam: a swimming beach, open lawns, a picnic area, a vista or overlook area, and rest rooms.

#### Terrestrial Mitigation at the Wynoochee Dam

To mitigate the loss of big game habitat inundated by the Wynoochee Reservoir, the Corps acquired 1030 acres of land in four noncontinuous parcels downstream of the project. This land is managed as elk habitat. Of the 1030 acres acquired by the Corps, 520 acres were acquired fee simple. Conservation easements were obtained for the remaining 510 acres. In accordance with the Water Resources Development Act of 1990, the City acquired the 520 acres owned by the Corps fee simple when it acquired the Wynoochee Dam. The City also acquired the conservation easements the Corps previously held for the remaining land (510 acres).

#### Discussion

##### I. Project Boundary

###### Wynoochee Dam and Reservoir

As a result of fee title transfer of the dam, the licensees wish to treat the dam and its hydroelectric facilities as a single unit of development, and request that the Wynoochee Dam and Reservoir be included in the project boundary. The Corps supports including the dam and reservoir in the project boundary as evidenced by a Memorandum of Agreement (MOA) between the Corps

and the licensees requiring the licensees to pursue such amendment of license.<sup>5</sup>

The City owns fee title to 27.82 acres of land which encompass the dam and a portion of the reservoir next to the dam. The licensees have a special-use permit from the U.S. Forest Service (USFS) for their use of 1126 acres of land flooded by the dam forming the Wynoochee Reservoir. The special-use permit includes the licensees' use of another 4.46 acres of USFS lands encompassing the project's intake structure, penstock, powerhouse, and other appurtenant facilities.

Pursuant to the Water Resources Development Act of 1990, and in light of the fact the dam is no longer owned by the federal government, this order includes the Wynoochee Dam and Reservoir in the project boundary.

###### Transmission Line

The license authorized the construction of a 20-mile-long aboveground (34.5 kV) transmission line. However, the licensees have constructed a short 900-foot-long underground (13.8 kV) transmission line which connects the project to a nearby Grays Harbor County Public Utility District (PUD) distribution line. The licensees request revising the project boundary to include the constructed line and delete the authorized 20-mile-long transmission line corridor. The licensees also request deleting articles 110, 410, and 411 which relate exclusively to the authorized line.<sup>6</sup>

The licensees informed the Commission of their proposal to tie into the existing PUD line by letter dated October 15, 1991. By letter dated March 20, 1992, the Commission notified the licensees that approval of the line would be addressed when as-built drawings of the line were filed with the Commission. Further, the Commission determined that the proposed new line would not result in any environmental impacts other than those identified during the Commission's review of the project's

<sup>5</sup> Memorandum of Agreement Between the Cities of Aberdeen and Tacoma and the Department of the Army for Coordination of the Operation and Maintenance of the Wynoochee Lake Project with the Appurtenant Hydroelectric Powerplant, FERC License No. 6842, dated February 18, 1994.

<sup>6</sup> Article 110 requires the removal of aerial transmission lines to allow timber harvesting by cable logging methods. Article 410 requires the submittal of a transmission line right-of-way revegetation plan. Article 411 requires the submittal of a transmission line design plan to incorporate raptor protection.

original application. The licensees filed as-built drawings showing the constructed line on April 7, 1994.

This order revises the project boundary to include the constructed line and deletes the 20-mile-long transmission line corridor from the license. Articles 110, 410, and 411 shall be deleted from the license because the requirements in these articles don't apply to the constructed line. Table 1 on page 9 shows those lands included in the revised project boundary by this order. Ordering paragraph (K) of this order requires filing of a new exhibit G showing the revised project boundary.

## II. Annual Charges

The licensees propose amending the license to delete annual charges for the use of the dam and the transmission line corridor. The licensees propose to include annual charges for the original 4.46 acres of lands owned by the USFS, but not the 1126 acres of reservoir lands owned by the USFS. The licensees claim that charges for the use of the 1126 acres of reservoir lands shouldn't apply because Congress didn't intend to impose any additional fees on the licensees when it authorized fee title transfer of the dam.<sup>7</sup>

The licensees state that Congress authorized fee title transfer of the dam to save the federal government millions of dollars in operation costs. The licensees further state that the City agreed to assume Operation, Maintenance, Rehabilitation, and Repair (OMR&R) responsibilities and costs for the dam, but only to the extent that the Corps previously had such responsibilities and costs.

The licensees state that since the Corps never was required to pay for the inundated reservoir lands, charges for the use of these lands were never included in the calculations or discussed in negotiations relating to fee title transfer.

<sup>7</sup> The Energy and Water Development Appropriations Act of 1992 established \$4,952,158 as the City's payment to the federal government to acquire the Wynoochee Dam. The licensees state that the City has paid this amount in full and also maintains a trust of about \$1.2 million dollars for mitigation projects at the dam. The licensees submitted an October 9, 1992 letter from Congressman Norm Dicks to the USFS supporting the licensees' request for a waiver of any additional permit fees that may be imposed after the dam is transferred fee title. The USFS has waived any additional permit fees; its special-use permit does not assess fees for the licensees' use of the reservoir lands.

Section 10(e)(1) of the Federal Power Act (FPA)<sup>8</sup> states:

That the licensee shall pay to the United States reasonable annual charges in an amount to be fixed by the Commission for the purpose of reimbursing the United States for the costs of the administration of this Part; for recompensing it for the use, occupancy, and enjoyment of its lands or other property; ... Provided further, That licenses for the development, transmission, or distribution of power by States or municipalities shall be issued and enjoyed without charge to the extent such power is sold to the public without profit or is used by such State or municipality for State or municipal purposes, except that as to projects constructed or to be constructed by States or municipalities primarily designed to provide or improve navigation, licenses therefor shall be issued without charge;...

The Water Resources Development Act of 1990 transferred all rights, interests, and title to the Wynoochee Dam from the federal government to the City. Since the City, and not the federal government, now owns the dam, annual charges for the use of the dam are no longer applicable.

Annual charges relating to the transmission line corridor are no longer applicable either because the transmission line corridor has been replaced with a shortened transmission line which is not located on federal lands.

Pursuant to section 10(e) of the FPA, the Commission is required to assess annual charges for the 1126 acres of reservoir lands owned by the federal government unless the licensees have received an exemption from the assessment of annual charges. This is a statutory requirement and the Commission has no authority to waive statutory requirements.<sup>9</sup> That the licensees may have agreed that, in exchange for ownership of the Wynoochee Dam, the licensees would assume the OMR&R responsibilities and costs of the project only to the extent that the Corps previously had such responsibilities and costs does not by itself eliminate the licensees' statutory obligation to pay annual charges for the use of the 1126 acres of reservoir lands used for power purposes.

Pursuant to section 10(e) of the FPA and section 11.6 of the Commission's regulations, the licensees as municipalities, as defined in section 3(7) of the FPA, may seek relief from the

<sup>8</sup> 16 U.S.C. § 803(e).

<sup>9</sup> See Ford Motor Company and Rouge Steel Company, 52 FERC ¶ 61,025, at p. 61,145 (1990). The requirement for approval of interlocking directorates comes from the FPA (section 305, 16 U.S.C. §825d), and the Commission has no authority to waive it.



payment of the above annual charges by filing an application for exemption.

Section 11.6 of the Commission's regulations provides that a municipal licensee may claim total or partial exemption from the assessment of annual charges for the use of government lands based upon one or more of the following grounds:

- (1) The project was primarily designed to provide or improve navigation;
- (2) To the extent that power generated, transmitted, or distributed by the project was sold directly or indirectly to the public (ultimate consumer) without profit;
- (3) To the extent that power generated, transmitted, or distributed by the project was used by the licensee for municipal purposes.

Although the licensees request a waiver of the annual charges, they do not request a waiver based on the above grounds. The licensees merely point out in their application that it was Congress' intent not to impose any additional liabilities or financial burdens on them.

The reservoir lands owned by the federal government were not transferred fee title to the City along with the dam. The Water Resources Development Act of 1990 authorizing fee title transfer of the dam does not address the annual charges issue.

In light of the above, this order requires the licensees to pay annual charges for the use of the reservoir lands owned by the federal government. The licensees may seek relief from the payment of these annual charges, by filing with the Commission, for approval, an application for exemption pursuant to section 11.6 of the Commission's regulations.<sup>10</sup>

<sup>10</sup> See Sabine River Authority, State of Louisiana, and Sabine River Authority of Texas, Opinion No. 78; Opinion and Order Reversing Initial Decision, Terminating Proceeding and Ordering the Submission of Data, 10 FERC ¶ 61,241. The Commission reversed the initial decision which denied municipal licensee's claim for exemption of annual charges under §10(e) FPA and permits licensee another opportunity to establish that all or a portion of its power was "sold to the public without profit" within the statutory proviso of §10(e).

Table 1 below shows the acres by which the project's annual charges are determined as amended by this order. This order amends license article 201 accordingly.

Table 1.

Description	Lands in Revised Project Boundary (acres)	Ownership	Annual Charges (acres)
reservoir	1126.00	USFS	1126.00
dam and portion of reservoir next to dam	27.82	licensee	0.00
intake, penstock, powerhouse, and appurtenant facilities	4.46	USFS	4.46
Totals	1158.28		1130.46

### III. Additional Articles

The licensees propose adding two new articles to the license to incorporate two MOAs they have with the Corps into the license. One MOA concerns the continued operation and maintenance of the Wynoochee Dam, the other MOA concerns environmental mitigation responsibilities. The MOAs and proposed articles are discussed below.

#### Memorandum of Agreement - Project Operation

The Water Resources Development Act of 1990 requires the licensees to operate the Wynoochee Dam in conformance with the Corps' regulations and the dam's original project purposes. The license (article 308) requires the licensees to enter into an agreement with the Corps to specify how to operate the hydroelectric facilities in a manner that would protect the dam's original project purposes. In accordance with these requirements, the licensees signed an MOA on February 18, 1994, with the Corps entitled "Memorandum of Agreement Between the Cities of Aberdeen and Tacoma and the Department of the Army for Coordination of the Operation and Maintenance of the Wynoochee Lake Project with the Appurtenant Hydroelectric Powerplant, FERC License No. 6842" (Operations MOA). Attachment 1 of this MOA entitled "Detailed Water Control Regulations" contains operating constraints set by the Corps for the period during which the dam is being used to produce power under the FERC license. Attachment 1 contains such operating constraints as the project's



rule curve, ramping rates,<sup>11</sup> minimum flows, and operation requirements to protect downstream fish migration.

The licensees propose adding an article to the license to bring the terms and conditions of Attachment 1 into the license. This order adds article 417 to the license to incorporate Attachment 1 of the Operations MOA into the license.

#### Memorandum of Agreement - Project Mitigation

The licensees propose adding a second article to the license to bring the terms and conditions of another MOA they have with the Corps into the license. This second MOA, also signed February 18, 1994, is entitled "Special Agreement on Mitigation Responsibilities Between the Cities of Aberdeen and Tacoma and the Department of the Army for the Wynoochee Lake Project" (Mitigation MOA).

The Mitigation MOA describes the mitigation responsibilities being assumed by the licensees. The licensees assume the responsibility to operate and maintain the dam's fish passage facilities, recreation facilities, and elk mitigation lands discussed earlier. This order adds article 418 to the license to incorporate the Mitigation MOA into the license. Several issues arise, however, from incorporating the Mitigation MOA into the license. These issues are discussed below.

#### The Mitigation MOA

The Mitigation MOA includes the plans the licensees follow when operating the fish trap, recreation facilities, and elk mitigation lands. Section 1.0 and attachment 1 of the Mitigation MOA comprises the licensees' fish trap operation plan. Section 2.0 and attachment 2 of the Mitigation MOA comprises the licensees' recreation plan. Section 3.0 and attachment 3 of the Mitigation MOA comprises the licensees' elk mitigation plan.

This order approves the above plans contained in the Mitigation MOA subject to the licensees filing as-built drawings of the fish trap and recreation facilities, and a description of how the recreation facilities comply with the Commission's regulations at part 2.7 (recreation development at licensed projects) and part 8 (recreation opportunities at licensed projects). Further, each of the three plans contained in the Mitigation MOA require the licensees to file an annual monitoring report with the Corps. This order requires the licensees to file these monitoring reports with the Commission also. The reports will keep the Commission informed of each plan's implementation.

<sup>11</sup> Ramping rates are also set in article 408.

Finally, the fish trap, recreation, and elk mitigation plans contain clauses that would limit the Commission's ability to require changes to these plans. For example, the licensees' fish trap plan says, "The licensees shall not be required to enhance or make additions to existing operations or facilities, as they are detailed in attachment 1." The licensees' recreation and elk mitigation plans have similar clauses. The Commission must have the ability to require changes to these plans should changing circumstances warrant such action. This order reserves the Commission's authority to require changes to the fish trap, recreation, and elk mitigation plans in the Mitigation MOA.

The Mitigation MOA also contains language that suggests the licensees can make changes to the above plans at any time. Now that these plans are being approved as part of the license, the licensees must obtain Commission approval prior to making any substantial changes in accordance with standard license articles 2 and 3.

This order adds article 419 to the license to address the above concerns. Article 419 approves the fish trap, recreation, and elk mitigation plans contained in the Mitigation MOA, requires the licensees to file annual monitoring reports with the Commission, and reserves the Commission's authority to require changes to the fish trap, recreation, and elk mitigation plans.

#### IV. Deletion and Modification of Articles

Because the Corps owned the dam when the license was issued, the license required the licensees to consult with the Corps, and or obtain approval from the Corps on certain actions affecting the dam. Now the licensees own the dam and have entered into agreements with the Corps to operate the project according to the Corps' regulations. The licensees, therefore, request deleting and modifying license articles requiring consultation with the Corps and the Corps' approval. Also, the licensees propose modifying or deleting license articles that are no longer applicable or have requirements that have already been satisfied.

The licensees propose deleting article 111 which requires flow releases and temperature regulation as directed by the Corps. Article 111 is no longer necessary since modified article 403 addresses the same requirements as article 111. The licensees propose deleting article 112 which requires the licensees to submit to the Corps and to state and federal fish agencies, a schedule for providing fish passage designs acceptable to these agencies. The licensees propose deleting

article 112 because no new fish passage facility was proposed; fish passage is already being provided under article 406.

The licensees propose deleting articles 304, 305, 306, 307, 308, 309, 310, 402, and 413 from the license because these articles require consultation and or approval from the Corps which is no longer necessary, or the requirements of these articles have already been satisfied.<sup>12</sup> The licensees propose modifying license articles 401, 403, 404, 406, and 408 to reflect that they now own and operate the dam and they have MOAs with the Corps relating to the project's operation and mitigation.<sup>13</sup>

The proposed article deletions are acceptable. The proposed article modifications are acceptable with Commission staff editorial changes for consistency purposes. This order deletes articles 111, 112, 304, 305, 306, 307, 308, 309, 310, 402, 413, and modifies articles 401, 403, 404, 406, and 408.

#### V. Installed Capacity

The license authorized the installation of two Francis turbines with a combined maximum hydraulic capacity of 1300 cfs and a total installed capacity of 10.8 MW.<sup>14</sup> By letter dated February 23, 1994, the licensees notified the Commission that a

<sup>12</sup> Article 304 requires the hydroelectric facilities to be designed and constructed in a manner acceptable to the Corps. Article 305 requires the licensees to review contractor-designed construction cofferdams. Article 306 requires the licensees to enter into an agreement with the Corps addressing access and construction methods at the dam. Article 307 allows the Corps to inspect all project works. Article 308 requires the licensees to construct and operate the hydroelectric facilities in a manner acceptable to the Corps. Article 309 restricts claims the licensees may have against the federal government should reservoir operating levels be changed. Article 310 requires the Commission's regional office to acquire the Corps approval prior to authorizing project construction. Article 402 requires a temperature study to demonstrate the ability of the intake structure to meet the Corps' water temperature regulation objectives. Article 413 requires the east bank access road alternative for the powerhouse.

<sup>13</sup> Revised license articles 401, 403, 404, 406, and 408 are shown in Ordering Paragraph (E) of this order.

<sup>14</sup> The license describes the hydraulic capacity of the authorized turbines as 1100 cfs, but this capacity reflects the reported best gate capacity of the turbines, not the maximum hydraulic capacity.

single Kaplan turbine with a maximum hydraulic capacity of 10 cfs and a total installed capacity of 12.8 MW had been installed at the project.<sup>15</sup>

Standard license articles 2 and 3 require the licensees to construct the project in substantial conformity with the project's approved exhibits. The licensees' installation of one Kaplan turbine instead of two Francis turbines is not a substantial change because the project's maximum hydraulic capacity remains the same and the change will not result in any environmental impacts other than those identified during the Commission's review of the project's original application.

This order revises the project description to show a single Kaplan turbine with a maximum hydraulic capacity of 1300 cfs and a total installed capacity of 12.8 MW. The best gate capacity of the turbine is 11.1 MW.

#### VI. Agency Comments and Recommendations

The licensee's amendment application was public noticed on January 21, 1994, with a comment closing date of March 3, 1994. No protests or motions to intervene were filed in this proceeding. The WDFW filed comments by letters dated March 1, 1994, and November 20, 1995. The USFS filed comments by letters dated January 30 and March 10, 1995. Mr. Steve Ness filed comments by letters dated April 18, August 10, and October 2, 1995. All comments were considered in our review of the application. Comments are discussed below.

##### Washington Department of Fish and Wildlife

Section 10(j) of the FPA requires the Commission to include license conditions based on recommendations of federal and state fish and wildlife agencies submitted pursuant to the Fish and Wildlife Coordination Act for the protection, mitigation, and enhancement of fish and wildlife resources.

The WDFW and the licensees (City of Tacoma) filed a joint comment letter dated November 20, 1995, updating the WDFW's March 1, 1994 comments on the application. The letter discusses the licensees and the WDFW's joint efforts to complete the section 1135 fish restoration program and to resolve other issues at the project. In conclusion, the letter states that the

<sup>15</sup> The Corps' FEA for fee title transfer of the dam dated July 9, 1993 describes the project as containing one turbine with a maximum hydraulic capacity of 1300 cfs. The FEA was circulated to all appropriate federal and state agencies. No agencies commented on the change in number or type of turbine.

licensees and the WDFW request that all lands the City acquired through fee title transfer be included in the project boundary provided that such inclusion does not result in additional fees to the licensees.

This order requires the licensees to file a revised exhibit G to show all lands used for project operation or mitigation, including all 1030 acres of elk mitigation lands, enclosed in the project boundary.

#### U.S. Forest Service

We received a copy of a January 30, 1995, letter from the USFS to the licensees commenting on the application. The USFS agrees with deleting articles 110 and 111 from the license, but is concerned about deleting article 112. The USFS believes deleting article 112 may exclude it from involvement in mitigation projects like the section 1135 fish restoration program. The USFS expresses a general concern that the licensees should continue to consult with the USFS on any project changes affecting USFS resources.

Article 112 requires the licensees to submit to the Corps and to state and federal fish agencies, a schedule for providing designs for fish passage acceptable to these agencies. Article 112 also requires the licensees to operate the project for fish passage as directed by the Corps in cooperation with federal and state fish agencies.

Article 112 was included in the license because of an early proposal to pass downstream migrating smolts through the hydroelectric facilities. This early proposal was rendered moot because article 406 requires the hydroelectric facilities to be shut-down from April 15 through June 30 yearly. This allows downstream migrating smolts to be passed through the low-flow conduits as was done before the hydroelectric facilities were installed.

By letter dated March 8, 1988, the licensees filed with the Commission documentation of agency concurrence that article 112 was no longer needed because downstream fish passage would be provided under article 406.<sup>16</sup> Despite the licensees' March 8 filing, article 112 was never deleted from the license.

<sup>16</sup> The following agencies concurred that article 112 was no longer needed: U.S. Fish and Wildlife Service, National Marine Fisheries Service, Washington Department of Wildlife, Washington Department of Fisheries, the Confederated Tribes of the Chehalis Reservation, and the Quinault Indian Nation.

This order deletes article 112 from the license because downstream fish passage is being provided under article 406. Deleting article 112 does not exclude the USFS from consultation regarding the project. In accordance with article 108, the licensees must continue to obtain written approval from the USFS for any project changes.<sup>17</sup>

#### Other Comments

By letters dated April 18, August 10, and October 2, 1995, Mr. Steve Ness registered his concerns regarding the decline of anadromous fish runs in the Wynoochee River and the exacerbating effects of the fee title transfer of the dam to the licensees. Further, Mr. Ness offered a detailed list of his recommendations for restoring anadromous fish in the Wynoochee River.

Regarding Mr. Ness' comments, independent of the license requirements, the licensees are actively pursuing a final solution to mitigate for ongoing impacts to anadromous fish associated with the operation of the dam. The licensees have entered into an agreement with the Confederated Chehalis Tribes and the Quinault Indian Nation to fund restoration efforts and have already conducted some preliminary testing in partnership with the Corps. In light of the on-going efforts of the licensees and members of the Fish Restoration Technical Committee, dictating specific mitigative measures, at this time, would be premature and possibly interfere with the development of final restoration measures.

However, to ensure that final measures are best suited to the comprehensive development of the waterway and the restoration of anadromous fish in the Wynoochee River, the Commission should retain oversight of the fish restoration program. So we can monitor the licensees' progress in implementing final measures to mitigate for project related impacts to anadromous fish, ordering paragraph (K) of this order requires the licensees to file semi-annual status reports with the Commission. The first report will be filed within 90 days of the issuance date of this order. At a minimum these reports should include a summary of mitigation alternatives currently being considered by the Fish Restoration Technical Committee, and the status of feasibility testing. Prior to implementing final mitigative measures, the licensees will file a plan and schedule with the Commission for the implementation and testing of a final anadromous fish mitigation

<sup>17</sup> Amended by Errata Notice dated December 4, 1987, article 108 requires the licensees to obtain written approval from the USFS prior to making any changes in the location of any constructed project features or facilities, or in the uses of project lands and waters, or any departure from the requirements of any approved exhibits filed with the Commission.



plan. The final plan should include the attached comments of the members of the Fish Restoration Technical Committee, detailed drawings and specifications of proposed facilities, and a statement regarding the specific criteria to be used to gage the success of mitigation. To ensure that the plan is best suited to the comprehensive development of the waterway and the restoration of anadromous fish in the Wynoochee River, the Commission will reserve the right to modify the plan.

If the measures implemented by the licensees prove ineffective or if unforeseen problems arise, additional protection for aquatic resources is afforded through standard license article 15. Article 15 stipulates "the licensee shall, for the conservation and development of fish and wildlife resources, construct, maintain, and operate, or arrange for the construction, maintenance, and operation of such reasonable facilities, and comply with such reasonable modifications of the project structures and operation, as may be ordered by the Commission upon its own motion or upon the recommendation of the Secretary of the Interior or the fish and wildlife agency or agencies of any State in which the project or a part thereof is located, after notice and opportunity for hearing."

#### VII. Comprehensive Plans

Section 10(a)(2) of the FPA requires the Commission to consider the extent to which a proposed project is consistent with Federal or state comprehensive plans for improving, developing, or conserving a waterway or waterways affected by the project. Of the comprehensive plans filed with the Commission, staff identified three plans relevant to this amendment.<sup>18</sup> No conflicts were found.

#### VIII. Conclusion

The licensees do not intend to change the project's current operation. Project operation will be controlled by the terms and conditions of the license and the Corps' regulations contained in Attachment 1 of the Operations MOA which has been incorporated into the license. The hydroelectric facilities and the dam will be operated as a single unit of development.

<sup>18</sup> (1) Forest Service. 1990. Olympic National Forest Land and Resource Management Plan. Department of Agriculture, Olympia, Washington. July 1990. 232 pp. and appendices. (2) Washington State Department of Fisheries. 1987. Hydroelectric Project Assessment Guidelines. Olympia, Washington. 91 pp. (3) Washington State Energy Office. 1992. Washington State Hydropower Development/Resource Protection Plan. Olympia, Washington. December 1992. 34 pp. and attachments.

The licensees do not propose any ground disturbing activities. The license would be amended to show the following two physical changes already made to the project: (1) the project's re-routed and shortened transmission line; and (2) one installed Kaplan turbine instead of two Francis turbines. The project's maximum hydraulic capacity has not changed from its authorized level of 1,300 cfs.

The licensees' proposed changes should have little or no environmental impacts. No impacts are expected to the project's water quality, fishery, terrestrial, aesthetic, recreation, or cultural resources. The Commission's EA finds that approving the application would not constitute a major federal action significantly affecting the quality of the human environment.

Amending the license for the Wynoochee Project as discussed above would be in the public interest.

#### The Director orders:

(A) The license for the Wynoochee Project, FERC No. 6842, is amended as provided in this order, effective the first day of the month in which this order is issued.

(B) The project boundary shall include the Wynoochee Dam and Reservoir.

(C) The licensee is no longer required to construct a 20-mile-long, aboveground, 34.5 kV transmission line.

(D) Articles 110, 111, 112, 304, 305, 306, 307, 308, 309, 310, 402, 410, 411, and 413 are deleted from the license.

(E) Articles 401, 403, 404, 406, and 408 shall be revised to read as follows:

#### Article 401:

On December 19, 1991, the licensee filed a plan with the Commission to control erosion, turbidity, sedimentation, and slope instability. The plan includes functional design drawings and topographic map locations of control measures, monitoring and maintenance programs for project operation, and provisions for periodic review of the plan and for making any necessary revisions to the plan. The Commission reserves the right to require changes to the plan.

#### Article 403:

The licensee shall regulate flow releases through the temperature panels in the intake structure or the selective



withdrawal system in the dam to meet the following water temperature requirements:

1. The selective withdrawal system in the dam must be used during the period April 15 through June 30 each year while the hydroelectric facility is shut down.
2. During the period of April 1 through October 31, the outflow water temperature objective range shall be 50-58 degrees Fahrenheit and the optimum temperature shall be 55 degrees Fahrenheit.
3. During the period of November 1 through March 31, the outflow water temperature objective range shall be 45-55 degrees Fahrenheit. If, however, the reservoir is isothermal and water temperature is less than 45 degrees Fahrenheit, the outflow water temperature may also be less than 45 degrees Fahrenheit.

In the event that the licensee is unable to operate the hydroelectric project to maintain flow releases and water temperature regulation as provided herein, the licensee will cease operation, notify the Portland Regional Office, and reservoir releases will be made through the existing dam outlets until the project can maintain flow releases and water temperature regulation as provided herein.

#### Article 404:

The licensee, after consulting the Washington Department of Ecology, the U.S. Fish and Wildlife Service, the Quinault Indian Nation, the Confederated Chehalis Tribes, and the Department of the Army, Seattle District Corps of Engineers, has developed and implemented a water quality study plan approved by Commission order dated January 13, 1994, to assess the impact of project operation on the water quality of the Wynoochee River. Upon completion of the study, the results shall be submitted to the Commission, and shall be served upon the above-named agencies and entities. Further, if the results of the study which must be filed with the Commission by January 1, 1998, indicate that changes in project structures or operations are necessary to maintain the State of Washington's water quality standards, the licensee shall also file, for Commission approval, a plan and schedule for implementing the specific changes in project structures or operations. At the same time, copies of the plan and schedule shall be served upon the above-named agencies and entities.

#### Article 406:

The licensee shall not operate the project's hydroelectric turbines during the period from April 15 through June 30, yearly; all outflows from Wynoochee Dam shall bypass the hydroelectric turbines through the existing outlet gates to provide for passage of outmigrating coho salmon and steelhead smolts. This operation schedule may be temporarily modified if required by operating emergencies beyond the control of the licensee, and for short periods upon mutual agreement among the licensee, the Department of the Army, Seattle District Corps of Engineers, the Washington Department of Fish and Wildlife, the U.S. Fish and Wildlife Service, the National Marine Fisheries Service, the Quinault Indian Nation, and the Confederated Chehalis Tribes.

#### Article 408:

The licensee shall adhere to the ramping rate procedures as specified in its ramping rate plan approved by Commission order dated January 24, 1994. The ramping rates shown below shall be adhered to at all times except during operating emergencies beyond the control of the licensee or for fish and wildlife purposes upon the mutual consent of the Washington Department of Fish and Wildlife (WDFW), the National Marine Fisheries Service (NMFS), the U.S. Fish and Wildlife Service, the Quinault Indian Nation, and the Confederated Chehalis Tribes.

These ramping rates will apply only to releases from the Wynoochee Project, as measured at the USGS gauge no. 12035400 located approximately at river mile 51.3, and 0.5 mile below Wynoochee Dam, commonly referred to as the Grisdale gauge. The licensee's ability to meet lower rates is limited by the design of the existing outlets, Corps regulations on operations of the outlets, and operator working hours.

Up Ramping: The Wynoochee Project will be operated consistent with the Corps' established operating constraints as set forth in Attachment 1 entitled "Detailed Water Control Regulations" of the Department of the Army's Memorandum of Agreement with the licensee dated February 18, 1994 entitled "Memorandum of Agreement Between the Cities of Aberdeen and Tacoma and the Department of the Army for Coordination of the Operation and Maintenance of the Wynoochee Lake Project with the Appurtenant Hydroelectric Powerplant, FERC License No. 6842." Attachment 1 stipulates that the maximum change in tailwater is 1.0 foot per hour during the low flow recreation season,

77-day shutdown

Ramping

-21-

and no limit during the flood season (flows above 2,500 cfs).

Down Ramping: The licensee will ramp the Wynoochee Project to achieve these limitations for protection of fish and wildlife resources. Daylight for the purposes of this article is defined as one hour before sunrise to one hour after sunset.

Season	Daylight Rates	Night Rates
February 16 - June 15	No ramping	2 inches/hour
June 16 - October 31	1 inch/hour	1 inch/hour
November 1 - February 15	2 inches/hour	2 inches/hour

(F) The project description in ordering paragraph (B) (2) shall be revised to read as follows:

Project works consisting of: (a) Wynoochee Dam, a 672-foot long, 175-foot high concrete gravity dam having a crest elevation of 805 feet MSL, and two tainter gates 32 feet wide by 39 feet high; (b) Wynoochee Reservoir, having a normal maximum surface area of 1,126 acres, and a gross storage capacity of 69,405 acre-feet; (c) an 83-foot high concrete tower intake structure at elevation 722 feet, 16 feet upstream of the Wynoochee Dam, having two 12-foot wide intake portals, the upper portal opening between 770 and 800 feet elevation and the lower portal opening between 722 and 737 feet elevation, and trashracks upstream of each portal; (d) a 4-foot wide walkway connecting the intake structure and the dam; (e) a 1,245-foot long underground concrete and steel-lined power tunnel with an inside diameter of 10 feet; (f) a 92-foot long, 48-foot wide, 22-foot high reinforced concrete powerhouse, located 800 feet downstream of the dam, containing one generator with a maximum rated capacity of 12.8 MW, and one Kaplan turbine with a hydraulic capacity of 1300 cfs and a best gate generating capacity of 11.1 MW; (g) a switchyard; (h) 4.16-kV generator leads; (i) a 416/34.5-kV, 10/13.3-MVA transformer; (j) a buried 13.8 kV transmission line connecting the powerhouse to the existing Grays Harbor County Public Utility District 34.5 kV distribution line; (k) a parking area on the northwest side of the powerhouse; and (l) an access road on the east bank and a bridge to the powerhouse.

(G) The licensees' request for a waiver of annual charges for their use of the U.S. Forest Service's reservoir lands is denied.

(H) Article 201 shall be revised to read as follows:

Article 201: The licensee shall pay the United States the following annual charge, effective the first day of

the month in which this order is issued:

a. For the purpose of reimbursing the United States for the cost of administration of Part I of the Act, a reasonable amount as determined in accordance with the provisions of the Commission's regulations in effect from time to time. The authorized installed capacity for that purpose is 11,100 kW.

b. For the purpose of recompensing the United States for the use, occupancy, and enjoyment of 1130.46 acres of United States lands, a reasonable amount as determined in accordance with the provisions of the Commission's regulations in effect from time to time.

(I) The following new articles are added to the license:

Article 417:

(a) Pursuant to the transfer of fee title of the Wynoochee Dam Project from the United States to the City of Aberdeen as authorized by and under conditions of Public Law 101-640, Section 203, the Project boundaries shall be changed as provided in this order.

(b) Furthermore, the Licensees have entered into a Memorandum of Agreement (MOA) with the Department of the Army dated February 18, 1994 entitled "Memorandum of Agreement Between the Cities of Aberdeen and Tacoma and the Department of the Army for Coordination of the Operation and Maintenance of the Wynoochee Lake Project with the Appurtenant Hydroelectric Powerplant, FERC License No. 6842." The MOA summarizes the Secretary of Army's regulations to assure that the authorized purposes of the Wynoochee Dam Project are met, as required by Section 203 of P.L. 101-640. Attachment 1 of the MOA, entitled "Detailed Water Control Regulations," is incorporated by this reference and will be used by the FERC to enforce compliance by the Licensees with the Secretary's regulations contained therein, as such regulations may be changed by the Secretary of the Army pursuant to the provisions of Section 10 of the MOA. The licensee shall file with the Commission any changes to Attachment 1 within 30 days of such a change.

Article 418:

Pursuant to the transfer of fee title of the Wynoochee Dam Project from the United States to the City of Aberdeen as authorized by and under conditions of Public Law 101-640, Section 203, the Army has

transferred to the Licensees certain responsibilities related to mitigation for the Wynoochee Dam Project. The Licensees and the Army have entered into a Memorandum of Agreement (MOA) dated February 18, 1994 entitled a "Special Agreement on Mitigation Responsibilities Between the Cities of Aberdeen and Tacoma and the Department of the Army for the Wynoochee Lake Project." This MOA is incorporated into the license by this reference.

Article 412:

The following plans contained in the Memorandum of Agreement between the licensee and the U.S. Army Corps of Engineers dated February 18, 1994, entitled a "Special Agreement on Mitigation Responsibilities Between the Cities of Aberdeen and Tacoma and the Department of the Army for the Wynoochee Lake Project" are approved: (1) the fish trap operation plan consisting of Section 1.0 and Attachment 1, (2) the recreation plan consisting of Section 2.0 and Attachment 2, and (3) the elk mitigation plan consisting of Section 3 and Attachment 3.

The licensee shall file with the Commission by March 1 annually, those monitoring reports the licensee submits to the U.S. Army Corps of Engineers as those reports are described in the licensee's fish trap operation plan, recreation plan, and elk mitigation plan approved by this order. The licensee shall prepare each monitoring report after consultation with the U.S. Fish and Wildlife Service and the Washington Department of Fish and Wildlife. The licensee shall also consult with the National Marine Fisheries Service for monitoring reports regarding the fish trap operation plan. The licensee shall include in its annual monitoring reports documentation of consultation with the agencies and copies of any agency comments. The licensee shall give each agency at least 30 days to review and comment on each monitoring report prior to filing the reports with the Commission.

The Commission reserves the right to require changes to the licensee's fish trap operation plan, recreation plan, and elk mitigation plan.

(J) Within 90 days from the date of this order the licensee shall file, for Commission approval, as-built drawings of the fish trap and recreation facilities, and documentation that the licensee's recreation plan complies with the Commission's regulations at Part 2.7 and Part 8 or a plan to bring the recreation facilities into compliance with Part 2.7 and Part 8.

(K) Within 90 days from the date of this order the licensee shall file, for Commission approval, a new exhibit G showing the revised project boundary to include the Wynoochee Dam and Reservoir, the fish trap facilities, the recreation facilities, and the 1030 acres of elk mitigation lands. Along with the revised exhibit G, the licensee shall file a copy of the conservation easements for the elk mitigation lands.

(L) The Licensee shall file semi-annual status reports with the Commission on the progress made to mitigate project related impacts on anadromous fish. The first report shall be filed within 90 days of the issuance date of this order. At a minimum these reports shall include a summary of mitigation alternatives currently being considered by the Fish Restoration Technical Committee, and the status of feasibility testing. Prior to implementing final mitigative measures, the licensee shall file a plan and schedule with the Commission for the implementation and testing of a final anadromous fish mitigation plan. The final plan shall include the attached comments of the members of the Fish Restoration Technical Committee, detailed drawings and specifications of proposed facilities, and a statement regarding the specific criteria to be used to gauge the success of the proposed mitigation. The Commission reserves the right to modify the plan.

(M) This order constitutes final agency action. Requests for rehearing by the Commission may be filed within 30 days of the date of issuance of this order, pursuant to 18 C.F.R. § 385.713.

J. Mark Robinson  
Director, Division of Project  
Compliance and Administration

File new  
proj. boundary

Approved. Fish  
plan reports

Consult w/ US on  
annual reports

Mitig. agr.  
incorporated

MEMORANDUM OF AGREEMENT  
BETWEEN  
THE CITIES OF ABERDEEN AND TACOMA  
AND  
THE DEPARTMENT OF THE ARMY  
FOR  
COORDINATION OF  
THE OPERATION AND MAINTENANCE  
OF THE WYNOOCHEE LAKE PROJECT WITH THE APPURTENANT  
HYDROELECTRIC POWERPLANT, FERC LICENSE NO. 6842

This MEMORANDUM OF AGREEMENT ("MOA") is made this 18 day of FEB, 1994, by and among the City of Aberdeen ("Aberdeen"), the City of Tacoma ("Tacoma"), both municipal corporations of the State of Washington, jointly referred to as "Licensees," and The Department of the Army ("Army") represented by the Assistant Secretary of Army (Civil Works) ("Secretary"). The Army will administer this MOA through the District Engineer of the Army Corps of Engineers ("Corps"), pursuant to direction by the Secretary.

RECITALS

WHEREAS, Aberdeen and the Army have entered into that certain Memorandum of Agreement between the City of Aberdeen and the Army dated September 20, 1993 ("Aberdeen Agreement") providing regulations for Operation, Maintenance, Repair, Replacement and Rehabilitation ("OMRR&R") of the Wynoochee Lake Project ("Reservoir Project"); and

WHEREAS, Aberdeen and Tacoma are joint licensees under the Federal Energy Regulatory Commission License No. 6842, as amended ("FERC License") for the construction and operation of the Wynoochee Hydroelectric Powerplant ("Hydroelectric Facilities") adjacent to the Reservoir Project; and

WHEREAS, pursuant to Section 203 of the Water Resources Development Act of 1990 ("WRDA 90"), Public Law No. 101-640 (November 28, 1990), 104 Stat. 4604, 4632; title to the

Reservoir Project, both real and personal property, has been transferred by the Secretary to Aberdeen; and

WHEREAS, concurrent with the execution hereof, the Licensees and the Army are entering into that certain Special Agreement on Mitigation Responsibilities ("Special Mitigation Agreement"), which addresses the Licensees continuing obligations with respect to mitigation for the Reservoir Project now that fee title has been transferred to Aberdeen; and

WHEREAS, the FERC License will be amended to include the Reservoir Project and the Hydroelectric Facilities as a single unit of development ("Wynoochee Dam Project"); and

WHEREAS, the parties desire to provide for the efficient management, reporting and inspection associated with the Wynoochee Dam Project;

NOW, THEREFORE, the parties agree as follows:

#### SECTION 1.0 PURPOSE

This MOA is for the purpose of clarifying the responsibilities of the Secretary and the Licensees during the period that the Wynoochee Dam Project is being used to produce power under the FERC License. As a result of the transfer by the Secretary of fee title to the Reservoir Project to Aberdeen, the Licensees will apply for amendment of the FERC License. The agreed forms of applicable articles proposed for addition to the FERC License are shown in Attachment 2. This MOA also identifies those items which the Army will expect the FERC to enforce before taking the Army's own independent actions in the manner described in the Aberdeen Agreement. Nothing herein will relieve Aberdeen from its obligations under the Aberdeen Agreement, except as described in Sections 4.0, 5.0, 6.0 and 7.0.

#### SECTION 2.0 WATER CONTROL REGULATION

The Licensees shall comply with water control regulations contained in the FERC License, and the Water Control Plan ("Water Control Plan") which is Section 8 of the Water Control Manual dated September 13, 1993, as it may be amended by the Army pursuant to Section 10 of this Agreement. The Army retains the Army's rights of enforcement delineated in the Aberdeen Agreement. Attachment 1 to this MOA shall be incorporated into the FERC License by reference. The Army will look to the FERC to enforce the items in Attachment 1, prior to exercising the Army's rights of enforcement as delineated in the Aberdeen Agreement.

#### SECTION 3.0 FLOOD CONTROL

The Licensees shall comply with flood control regulations contained in the FERC License and the Water Control Plan. Except as provided elsewhere in this MOA, the Army will have the right to enforce the provisions of the Aberdeen Agreement and the Water Control Plan in the manner delineated in the Aberdeen Agreement.

## SECTION 4.0 DAM SAFETY PROGRAM

The Secretary accepts Part 12 of 18 CFR in lieu of the dam safety regulations of the Corps. The Instrumentation and Data Monitoring program as presented in Attachment 3 shall be continued by Licensees, unless Licensees receive express written consent for changes from the FERC. The Dam Safety Training program as presented in Attachment 4 shall be continued by Licensees, unless modifications are approved by the FERC. The Licensees shall inspect and maintain the Reservoir Project spillway bridge in accordance with all pertinent Federal and Washington State statutes and regulations. The Licensees shall notify the Army 30 days in advance of all FERC dam safety and bridge inspections so the Corps can arrange to participate if it chooses to do so. The Licensees also shall provide the Army with copies of all dam safety and bridge inspection reports and related documents that the Licensees provide to the FERC. Without diminishing the authority of the Army, the FERC shall have authority to enforce dam safety regulations pertaining to the dam and reservoir. This Section will apply in lieu of Section 7 of the Aberdeen Agreement upon acceptance by the FERC of dam safety responsibility for the Wynoochee Dam Project.

## SECTION 5.0 RECREATION

The Licensees shall comply with the recreation requirements contained in the Aberdeen Agreement and the Special Mitigation Agreement. The Army retains the Army's rights of enforcement delineated in the Aberdeen Agreement. After the Special Mitigation Agreement is incorporated in the FERC License by reference, the Army will look to the FERC to enforce the terms of said agreement prior to exercising the Army's rights of enforcement as delineated in the Aberdeen Agreement.

## SECTION 6.0 ELK MITIGATION LANDS

The Licensees shall comply with the elk mitigation land requirements contained in the Aberdeen Agreement and the Special Mitigation Agreement. The Army retains the Army's rights of enforcement delineated in the Aberdeen Agreement. After the Special Mitigation Agreement is incorporated in the FERC License by reference, the Army will look to the FERC to enforce the terms of said agreement prior to exercising the Army's rights of enforcement as delineated in the Aberdeen Agreement.

## SECTION 7.0 FISH TRAP, HAUL AND RELEASE FACILITIES

The Licensees shall comply with the fish trap, haul, and release requirements contained in the Aberdeen Agreement and the Special Mitigation Agreement. The Army retains the Army's rights of enforcement delineated in the Aberdeen Agreement. After the Special Mitigation Agreement is incorporated in the FERC License by reference, the Army will look to the FERC to enforce the terms of said agreement prior to exercising the Army's rights of enforcement as delineated in the Aberdeen Agreement.

## SECTION 8.0

## INSPECTIONS AND ARMY ACCESS TO THE WYNOOCHEE DAM PROJECT

The Licensees shall conform to the FERC regulations on inspection. In addition, the Army will have the right to inspect the Reservoir Project as it deems necessary, but the Army will coordinate the Army's inspections with the FERC whenever possible. In addition to the access provided in Section 9.0 of the Aberdeen Agreement, the Licensees shall allow the Army and the Army's authorized representatives access to the Hydroelectric Facilities intake structure for the purposes of determining whether the Licensees are complying with the terms of this Agreement, and to those gages and facilities necessary to obtain required information on water quality or water control of the Reservoir Project. The Army shall provide the Licensees with a list of authorized representatives and make every effort to give the Licensees timely notice that an authorized representative will be inspecting the Reservoir Project, or the Hydroelectric Facilities intake structure, or any such necessary gages or facilities. A Licensee representative will have the right to accompany any Army representatives inspecting the Reservoir Project, or the Hydroelectric Facilities intake structure, or any such necessary gages or facilities. The Licensees also shall make available for inspection by the Army any records and documents relating to the operation, maintenance, and regulation of the Reservoir Project, the Hydroelectric Facilities intake structure, or any necessary gages or facilities related to water quality or water control of the Reservoir Project, that are within the possession or control of the Licensees within 48 hours of receiving a specific request from the Army. The costs of any Army inspections will be borne by the Army.

## SECTION 9.0

## NOTICES

All notices to be given pursuant to this MOA shall be in writing and shall be deemed given on the date personally delivered, upon confirmation of facsimile receipt, or five days after deposit in the U.S. Mail, postage prepaid, and addressed to the appropriate party as follows, or to such other address as any party shall notify the other parties in accordance with this Section:

If to the Army:

District Engineer  
Department of the Army  
Seattle District  
Corps of Engineers  
P.O. Box 3755  
Seattle, WA 98124-2255

If to Licensees:

Mayor  
City of Aberdeen  
200 East Market  
Aberdeen, WA 98520

and

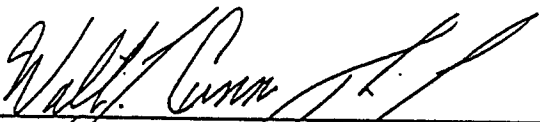
Director  
Tacoma Public Utilities  
P.O. Box 11007  
Tacoma, WA 98411

SECTION 10.0 AMENDMENT

Any amendment to this MOA must be in writing executed by the Army and Licensees, except as provided in this Section. The Secretary may amend the Water Control Plan without written agreement of Licensees, when necessary to protect the federally authorized purposes of the Reservoir Project. The Licensees must be notified of any amendment in advance and shall have thirty (30) days to respond in writing to a potential amendment prior to any amendment being made. However, the Secretary may make such amendments without written agreement of Licensees. If pursuant to this Section an amendment is made to the Water Control Plan that conflicts with a provision in Attachment 1, and if compliance with Attachment 1 would result in a violation of the new requirement, then Attachment 1 may be amended. Should the Secretary, in his or her discretion, undertake any studies of such proposed amendments to the Water Control Plan and Attachment 1, such studies will be undertaken in coordination with the Licensees.

IN WITNESS WHEREOF, the parties have executed this MOA as of the above date.

THE UNITED STATES DEPARTMENT OF THE ARMY

  
\_\_\_\_\_  
ASSISTANT SECRETARY OF THE ARMY  
(CIVIL WORKS)

CITY OF ABERDEEN

  
\_\_\_\_\_  
Mayor

CITY OF TACOMA  
DEPARTMENT OF PUBLIC UTILITIES

  
\_\_\_\_\_  
Director

Approved as to form & legality:

  
\_\_\_\_\_  
Chief Asst. City Attorney



ATTACHMENT 1

WYNOOCHEE DAM PROJECT

DETAILED WATER CONTROL REGULATIONS

A. OPERATING CONSTRAINTS

1. Reservoir Limits:

Maximum Flood Control Pool	800 feet
Minimum Flood Control Pool	776.1 feet
Minimum Pool	700 feet
Surcharge Pool	None

2. Maximum Change in Reservoir: No limit

3. Maximum Change in Tailwater for Dam Discharge:

Low Flow Period	1.0 foot per hour
Flood Season (above 2500 cfs.)	No limit

4. Minimum Discharge:

May and June	140 cfs.
July through April	190 cfs
January through December	

Sufficient flow to assure 120 cfs. below Aberdeen diversion

5. Maximum Discharge: No limit

Maximum discharge is subject to limit by tailwater rate-of-change criteria, flood control discharge requirements at the downstream control station, and special discharge regulation schedules.

6. Low-Flow Conduit Operation:

<u>Conduit</u>	<u>Minimum Reservoir Elevation (feet)</u>
No. 1 (high level)	792
No. 2 (high level)	781
No. 3 (high level)	770
No. 4 (high level)	759
No. 5 (low level)	738
No. 6 (low level)	705

When any of the high-level conduits 1 through 4 are being used, they must be operated fully open or completely closed for safely passing downstream migrants. Gates may be partially closed during the period August through November if operation for water temperature control is determined by the Army to be of higher priority than fish passage.

7. Sluice Gates:

- a. Sluice gate openings between 70% and full-gate must be avoided due to sluice and structural vibrations.
- b. Sluice gate openings less than 5% must be avoided to prevent water from entering the low-flow service area enclosure structure.
- c. Sluice gates will be opened in the following sequence as increasing discharges are required and operated within the following limits:

<u>Sequence of Operation</u>	<u>Gate Number</u>	<u>Minimum % Opening</u>	<u>Maximum % Opening</u>
1	2	5%	70%
	1	0%	0%
2	2	70%	70%
	1	5%	70%
3	2	100%	100%
	1	5%	70%
4	2	100%	100%
	1	100%	100%

After following the above sequence, spillway gates will be opened as provided in paragraph 8 below.

- d. Sluice gates will be closed in the reverse sequence and limits outlined in c. above.

8. Spillway Gate Operating Sequence:

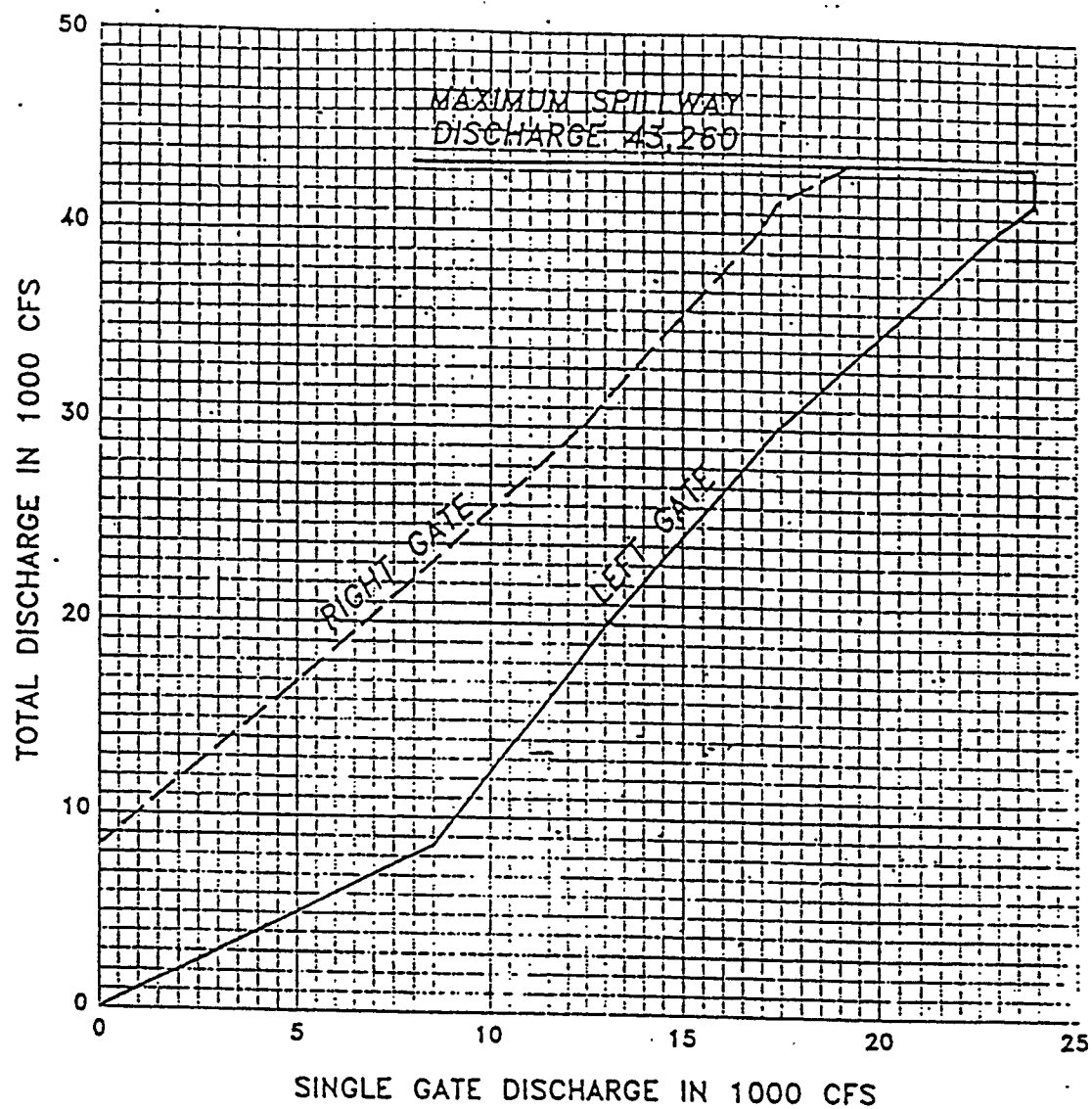
- a. The left spillway gate (left-side looking downstream) must be opened first until the discharge reaches 8500 cfs.
- b. For discharges above 8500 cfs., both gates must be opened to obtain the distribution shown on Chart 1, (attached).
- c. Spillway gates should not be operated in the range of unstable flow conditions designated on Chart 2 (attached).

B. OPERATING PROCEDURES

The Project will be operated in accordance with the procedures set forth in the following paragraphs, subject to variations to comply with the Project's authorized purposes.

1. Winter Flood Control (1 October to 24 March). During the winter season, the reservoir level will be maintained between the flood control rule curve ("Rule Curve") shown as Curve A on Chart 3 (attached), and Curve B on Chart 3, except when the flood control regulation described in paragraph 6 applies. If the reservoir pool elevation rises above the Rule Curve due to a forecasting error, the Licensees shall increase outflows in the order to draw the pool down to the Rule Curve as rapidly as possible. The FERC shall not consider Licensees in violation of the maximum elevation criteria unless the FERC, in consultation with the Corps, determines that the Licensees are encroaching on the flood control storage, without Corps approval, for the purpose of generating additional power.
2. Spring Reservoir Filling (25 March to 1 May). Beginning on 25 March, the reservoir will be filled to at least elevation 795 feet by 1 May, runoff permitting, according to the Rule Curve shown on Chart 3, except when the flood control regulation described in paragraph 6 applies. Scheduled operation above the Rule Curve will be permitted with prior approval of the Corps. If the reservoir pool elevation rises above the Rule Curve due to a forecasting error, the Licensees shall increase outflows in order to draw the pool down to the Rule Curve as rapidly as possible. The FERC shall not consider Licensees in violation of the maximum elevation criteria unless the FERC, in consultation with the Corps, determines that the Licensees are encroaching on the flood control storage, without Corps approval, for the purpose of generating additional power.
3. Summer Conservation (1 May to 1 September). The reservoir will be held at or near 800 feet, or as high as filling permits, for as long as possible during the summer months to preserve storage for water supply and fisheries.
4. Fall Drawdown Period (1 September to 1 October). During the month of September, inflow will be released so that the reservoir elevation will not increase. Drawdown of the reservoir to elevation 776.1 feet will begin no later than 10 September and will be accomplished by 1 October.
5. No Load Following. The Licensees will not fluctuate the discharge for the purposes of load-following or load-shaping on an hourly or daily basis.
6. Flood Control. The Corps will assume responsibility for regulating the reservoir when the flow above Black Creek is forecasted by the Corps to exceed 15,000 cfs., and will retain responsibility until either (a) revised forecasts by the Corps indicate the flows will not reach 15,000

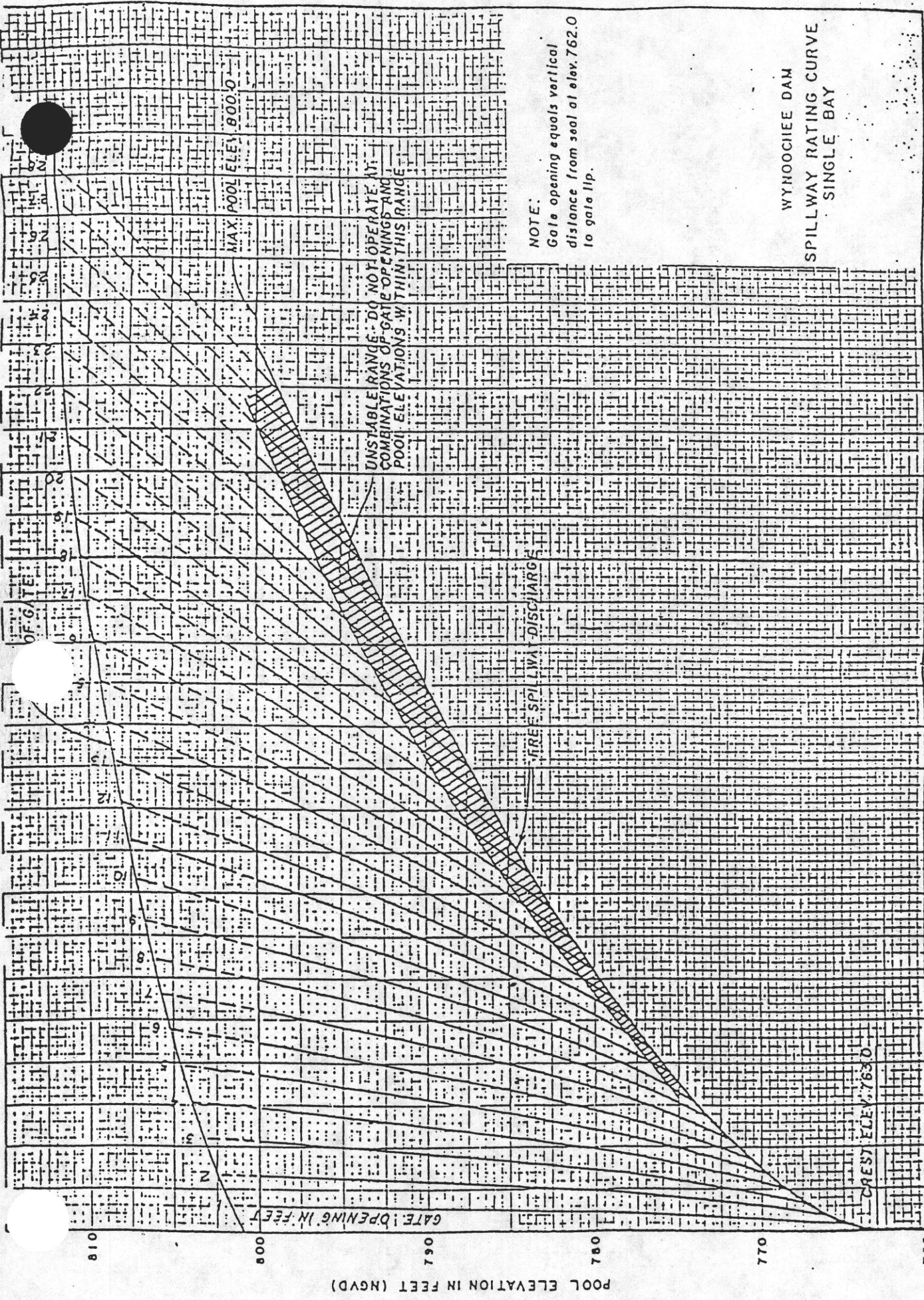
cfs. at Black Creek Gauge, or (b) the pool drops below the rule curve following flood control regulation. When the Corps is regulating the reservoir, it will not require drafting of the reservoir below the Rule Curve.



**NOTE**

Gate location looking downstream

NORTHWEST HYDRAULIC CONSULTANTS PORT, WASHINGTON		U.S. ARMY ENGINEER DISTRICT, SEATTLE CORPS OF ENGINEERS SEATTLE, WASHINGTON	
<b>WYNOOCHEE DAM</b> <b>OPTIMUM DISCHARGE DISTRIBUTION</b> <b>SPILLWAY GATES</b>			
SIZE		DATE	PLATE
DESIGN	J.L.L.	SEPT. 1969	
		CHK	SHEET



NOTE:

Gate opening equals vertical distance from seal at elev. 762.0 to gate lip.

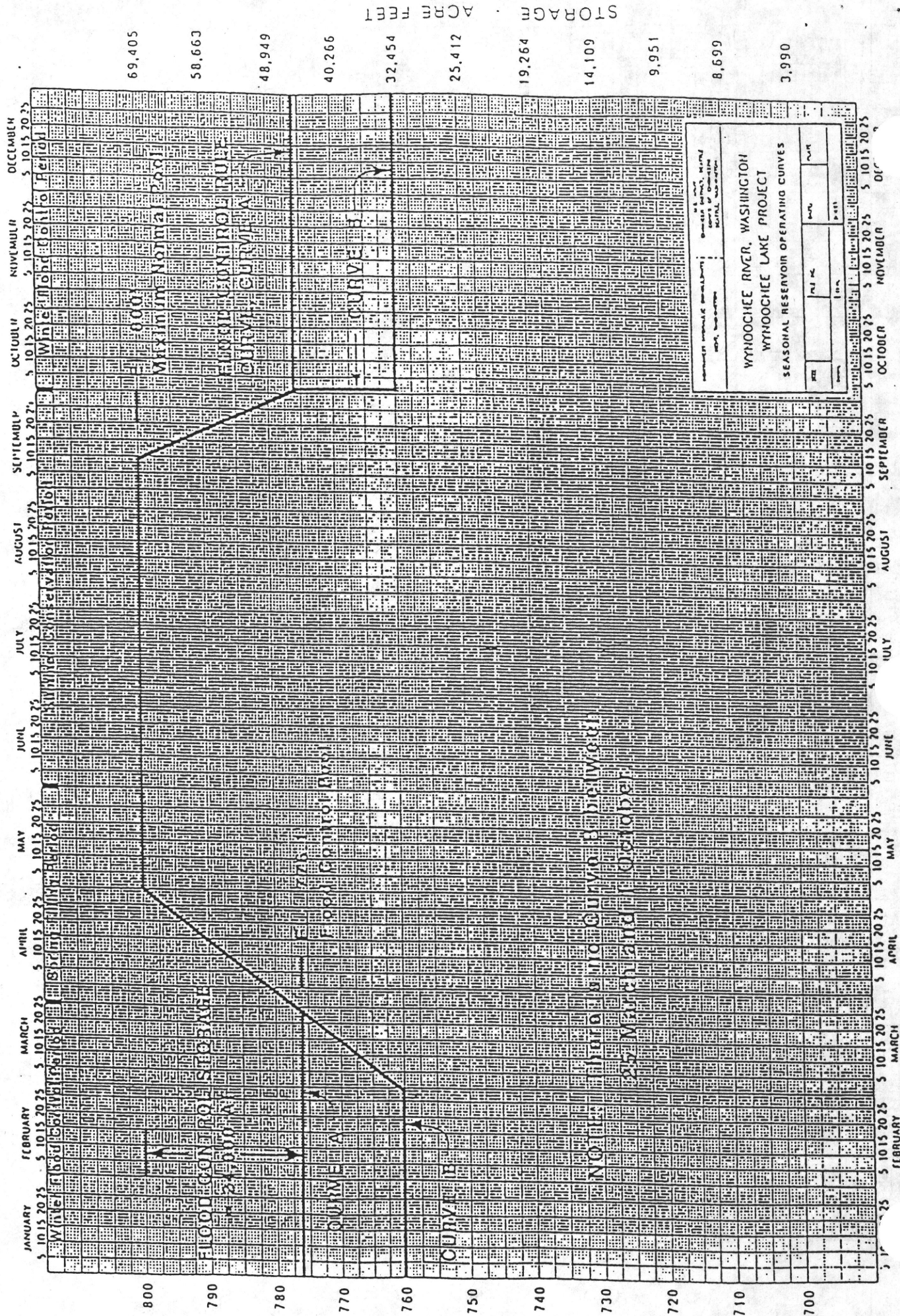
UNSTABLE RANGE: DO NOT OPERATE IN COMBINATIONS OF GATE OPENINGS AND POOL ELEVATIONS WITHIN THIS RANGE

WYNOOCHEE DAM  
SPILLWAY RATING CURVE  
SINGLE BAY

CHART 2

SINGLE BAY DISCHARGE IN 1,000 C.F.S.







ATTACHMENT 2

WYNOOCHEE LAKE PROJECT

PROPOSED FERC LICENSE AMENDMENT

Article 308 shall be deleted from the FERC License and replaced with the following:

ARTICLE XX1. (a) Pursuant to the transfer of fee title of the Wynoochee Lake Project from the United States to the City of Aberdeen as authorized by and under conditions of Public Law 101-640, Section 203, the Project boundaries shall be changed as shown on Exhibit \_\_\_\_ attached hereto and incorporated herein by this reference. (b) Furthermore, the Licensees have entered into a Memorandum of Agreement (MOA dated \_\_\_\_\_) with the Department of the Army. The MOA summarizes the Secretary of Army's regulations to assure that the authorized purposes of the Wynoochee Lake Project are met, as required by Section 203 of P.L. 101-640. Attachment 1 of the MOA is incorporated by this reference and will be used by the FERC to enforce compliance by the Licensees with the Secretary's regulations contained therein, as such regulations may be changed by the Secretary of the Army pursuant to the provisions of Section 10 of the MOA. Notices of any such change will be provided to the Commission within 30 days after the change is made.

ARTICLE XX2. Pursuant to the transfer of fee title of the Wynoochee Lake Project from the United States to the City of Aberdeen as authorized by and under conditions of Public Law 101-640, Section 203, the Army has transferred to the Licensees certain responsibilities related to mitigation for the Wynoochee Lake Project. Not later than 90 days after the license is amended to change the project boundaries to include the Wynoochee Lake Project, the Licensees shall enter into an agreement with the Department of the Army detailing the specific responsibilities transferred to Licensees. The agreement shall address recreation, elk mitigation lands, and fish trap, haul, and release facilities. A copy of said agreement shall be submitted to the Director, Office of Hydropower Licensing, and to the Regional Director, and the agreement shall be incorporated into the license by reference.

ATTACHMENT NO. 3

WYNOOCHEE DAM PROJECT  
INSTRUMENTATION AND DATA MONITORING

General Responsibility. The city of Aberdeen through the city of Tacoma and/or other agents shall maintain and/or add to the existing instrumentation program at Wynoochee Lake Project as required to enable the monitoring and evaluation of the safety of the project under all operating conditions. The planning, installation, and maintenance of the instrumentation program, as well as data collection, plotting, and analyzing, and reporting of results, is the responsibility of the Aberdeen and is necessary to ensure timely evaluation of the safety of Wynoochee Dam.

Data Collection, Interpretation, and Evaluation. The city of Aberdeen through the city of Tacoma and/or other agents shall monitor and record data for each instrument in accordance with the frequency listed in the below Instrumentation Table. The frequency shall be increased, whenever a particular condition or situation occurs that may threaten structural safety or when there is reasonable expectation of such a condition or situation occurring. Individuals monitoring instrumentation systems should be sufficiently familiar with the nature and degree of variability of prior readings to be able to readily recognize anomalous readings in order to initiate appropriate checks. The openness of foundation drain holes related to uplift pressures beneath the concrete structure shall be given particular attention. The data shall be plotted in a format that accurately depicts all relative data and can be clearly reproduced. The instrumentation data, excluding settlement monument, shall be furnished to and evaluated monthly by a senior geotechnical and a senior structural engineer who are thoroughly familiar with the structure, operational procedures, instrument systems, and the engineering/scientific history of the project. Settlement Monument data shall be furnished to and evaluated by senior geotechnical and structural engineers annually. A copy of the instrumentation data plots and evaluation notes shall be annually submitted to the FERC and the Corps 30 days prior to the annual FERC dam safety inspection.

Emergency Reporting. If on site or instrumentation data evaluating personnel encounter instrumentation readings that vary significantly from normal, and those readings have been properly verified by additional check readings, the procedures outlined in the Emergency Action Plan shall be followed.

INSTRUMENTATION TABLE  
WYNOOCHEE DAM PROJECT

<u>Instrument Type and Number</u>	<u>Reading Frequency</u>	<u>Instrument Location</u>
1. Piezometers Single and Double Stage: 5 single-stage (25 standpipes in 15 wells)	Monthly when pool is below el. 770. Biweekly when pool is between el. 770 and 785. Weekly when pool is above el. 785.	Abutment areas of dam.
2. 14 piezo-meters, single-stage	Monthly	Left and right embankment section of the dam.
3. 3 staff gages, 4 weirs (surface flow measurement in abutment areas)	Monthly	Three weirs and one staff gage in abutment areas. Two staff gages in left abutment drainage manhole. One weir off end of spillway measures relief drain hole leakage. One staff gage in manhole of collection pipe downstream of dam.
4. Seepage (dam interior)		
a. 13 weirs	Monthly	Gallery gutters in concrete structure.
b. Face drains, 66	Monthly	Galleries
c. Joint drains, 26	Monthly	Sluice gate chambers
d. Crack, 1	Monthly	Galleries
5. Uplift pressure cells, 14 (standpipe type)	Monthly	At the foundation of monoliths 4, 7, and 10.
6. Joint movement indicators, 4	Monthly	Joints 5/6, 6/7, 7/8, and 8/9 Relative movement indicators are the type shown on plate 5-2 of EM1110-2-4300.
7. Settlement monuments, 8	Once annually	Left and right embankment sections of the dam.

ATTACHMENT NO. 4

WYNOOCHEE DAM PROJECT  
DAM SAFETY PROGRAM

Project Personnel. The city of Aberdeen through the city of Tacoma and/or other agents shall implement a dam safety training program for project personnel, with retraining every four years, that will address the attached general course outline and the following:

- Discussion of basic typical design considerations for various types of construction, including hydraulic considerations, foundation factors, etc.
- Procedures for monitoring potential problem areas.
- Dam safety features in design and construction.
- Normal operation, surveillance, monitoring and reporting procedures.
- Emergency operations, surveillance, monitoring and reporting procedures.
- Post-earthquake inspections and types of damage that project personnel should look for.

Project and Support Personnel. Aberdeen through Tacoma and/or other agents shall provide Dam Safety Training to project and city personnel who will respond to an abnormal or emergency condition at the project. The training shall include operational exercises for emergency situations. The operational training exercises shall be conducted annually and shall be based on the more probable emergency situations that might occur on each major dam feature. A record shall be maintained at the project showing date, subject material, and personnel involved for each exercise conducted.

WYNOOCHEE DAM PROJECT  
DAM SAFETY TRAINING

General Course Outline

1. Purpose of Training Program.
  - a. Basic Objectives
  - b. History of Dam Failures.
  - c. Films or Slides Depicting Dam Safety Problems or Failures.
2. Dam Safety Features in Design and Construction.
  - a. Design Philosophy for Dams.
  - b. Design Assumptions, Construction History, Salient Features and Regulating Philosophy for the Project.
  - c. Past Monitoring, Experiences and Performance for Projects.
3. Normal Operation, Surveillance, Monitoring and Reporting Procedures.

AGREEMENT  
FOR  
WILDLIFE MITIGATION  
ON  
THE WYNOCHEE RESERVOIR PROJECT  
AND  
THE WYNOCHEE DAM HYDROELECTRIC PROJECT

THIS AGREEMENT is made and entered into by and between the Cities of Aberdeen and Tacoma, herein referred to as the Cities, and the Washington State Department of Wildlife, herein referred to as the State.

WHEREAS, the Cities are pursuing transfer of title for the Wynoochee Reservoir Project from the Corps of Engineers to the City of Aberdeen; and

WHEREAS, the Corps of Engineers set aside and managed wildlife mitigation lands for areas lost due to construction of the Wynoochee Reservoir Project as per the U.S. Army Corps of Engineers' Supplement 2 to Design Memorandum 9, Fish and Wildlife (Wildlife Land Mitigation); and

WHEREAS, the Cities desire to resolve issues concerning management of wildlife mitigation lands on the Wynoochee Reservoir Project;

NOW THEREFORE, the parties hereto agree as follows:

The agreement shall run for the term of Federal Energy Regulatory Commission (FERC) License No. 6842 for the Wynoochee Dam Hydroelectric Project expiring on September 9, 2037. Full annual payment from the Cities as provided herein shall be made each year through the year 2037. The amount paid is not renegotiable unless all parties agree.

This agreement shall not be construed to supplant conditions of the FERC license, limit agencies review of construction plans and mitigation for construction issues, or limit review and conditions subsequent to ongoing surveys for threatened and endangered species.

Any dispute among the Parties concerning compliance with this agreement shall first be elevated through each parties' chain of command to the chief executive officer (CEO) for each party. The CEO for each party hereto shall meet and attempt to resolve the dispute. If the CEO's cannot resolve the dispute within 30 days after their initial meeting, the parties agree the issue in dispute may be referred to a mutually agreeable arbitrator for binding and final resolution.

This agreement shall be binding on heirs, successors, or assigns.

This agreement may be altered or amended only in writing and based on mutual agreement of both the Cities and the State. None of the parties may amend or alter this agreement unilaterally.

### The Cities Agree to:

Place the land and access easements under control of the State, retaining the right to enter upon the property for the purpose of inspection. The State will manage approximately 1,030 acres along the Wynoochee River, downstream of the dam, for elk habitat management. Approximately 230 of these acres will be farmed for winter browse. The 230 acres are divided into four units and described as follows. Units I and II are in T 21N, Range 8W, Sections 25 and 26. Units III and IV are in T 20N, Range 8W, Section 2.

Pay annually by May 1, beginning in 1992, the following sum to the State escalated according to the following formulas:

Previous Year Wage Component	*	(Escalation Index 1)	=	Wage Component
Prev. Year Material Component	*	(Escalation Index 2)	=	<u>Material Component</u>
				Subtotal = Estimated Annual Cost
		Negotiated Adjustment	Deduct	<u>\$ 5,000</u>
				Payment = \$XX,XXX

The 1992 wage component is estimated at \$42,500 and the material component at \$32,500. Therefore the total estimated cost is \$75,000. After subtracting the negotiated \$5,000 the Cities' 1992 payment is \$70,000 (to be paid within 30 days of signing of this agreement).

Escalation Index 1 = One plus State salary increase percentage granted to employees of the Wildlife Area Manager classifications.

Escalation Index 2 = One plus Consumer Price Index, U.S. City Average, All Urban Consumers.

Each year, the previous year's calculated wage component and material component shall be substituted into the formulas for adjustment by the two indexes. If wage negotiations are not completed by the State Legislature by the date of the payment, the Cities shall assume an escalation index of 1.00. This index and the payment will be adjusted by invoice from the State after negotiations are completed.

#### Example for 1993:

\$42,500	*	1.03	=	\$43,775
32,500	*	1.05	=	34,125
		Subtotal	=	77,900
		Negotiated Adjustment	=	<u>-5,000</u>
		1993 Payment	=	\$72,900

#### Where:

Previous Year Wage Component	=	\$42,500
Previous Year Material Component	=	\$32,500
Escalation Index 1	=	1.03 (or 3% salary adjustment)
Escalation Index 2	=	1.05 (or 5% increase)

**The State Agrees to:**

Manage and maintain the existing wildlife mitigation lands to meet the project authorized purposes and be in general compliance with the Corps of Engineers' Operations and Maintenance Manual in effect at the time of execution of this agreement and in accordance with any future FERC license requirements for the term of the FERC license.

Support the title transfer of the existing Wynoochee Reservoir Project to the City of Aberdeen, and corresponding FERC license amendment, and indicate to the FERC and other agencies that this agreement resolves all wildlife mitigation needs for the existing Wynoochee Reservoir Project and Wynoochee Dam Hydroelectric Project, for the period of the FERC license.

Funds paid to the State shall be deposited in a dedicated account to be used only for Wynoochee wildlife mitigation, except for administrative overhead expenses charged at 26 percent of actual salaries paid.

Prepare the annual report on the wildlife mitigation program and attend the annual meeting to discuss the program as may be required by the FERC license.

The State shall protect, indemnify and hold harmless the owner of the mitigation lands identified in this agreement from and against liability for injury or death to employees of the State, arising from the acts of the State in the performance of this Agreement. If the injuries or death as provided in the preceding sentence are caused by or result from the concurrent negligence of the owner of the mitigation lands and the State, or the employees of either, then the indemnity provision provided in the preceding sentence shall be valid and enforceable only to the extent of the negligence of the State, or its employees.

CITY OF ABERDEEN  
MAYOR

STATE OF WASHINGTON  
DEPARTMENT OF WILDLIFE

Chuck Gurnea  
NAME

4-24-92  
DATE

[Signature]  
NAME

4/27/92  
DATE

CITY OF TACOMA  
DEPARTMENT OF PUBLIC UTILITIES  
LIGHT DIVISION

[Signature]  
NAME

4/23/92  
DATE

Approved as to form & legality:  
[Signature]  
Chief Asst. City Attorney





**TACOMA  
PUBLIC  
UTILITIES**

E. E. COATES, DIRECTOR  
3628 South 35th Street  
P.O. Box 11007  
Tacoma, Washington 98411  
(206) 383-2471

ATTACHMENT #6

DIVISIONS  
Light  
Water  
Belt Line

March 25, 1992

Mr. David Gufler  
Regional Habitat Program Manager  
Washington Department of Wildlife  
905 East Heron  
Aberdeen, Washington 98520

Dear Mr. Gufler:

Subject: Letter of Intent Regarding Operation of  
Wynoochee Wildlife Mitigation Land

The Department of Wildlife and Cities of Aberdeen and Tacoma have recently concluded negotiations regarding the operation and maintenance of the wildlife mitigation lands. This negotiation was brought about due to the proposed transfer of title for the Wynoochee Project from the Corps of Engineers to the City of Aberdeen. The following is a summary of the agreements reached and it is now our intent to prepare an agreement with the Department of Wildlife to be presented to the Aberdeen City Council and Tacoma Public Utility Board for approval.

Both Parties Agree:

The agreement shall run for the term of the original FERC license with full payment provided for the year 2037.

No proof of actual annual expenditures is required. It is presumed that the actual expenditures may vary from the estimate which provides only the long-term average of funds needed to operate the lands. The amount paid is not renegotiable unless all parties agree.

The Cities Agree to:

Pay annually, beginning in 1992, the following sum to the Department of Wildlife escalated according to an index(es) that appropriately reflects state pay raises and costs of materials, supplies, etc.

$\$75,000 * (\text{Escalation Index}) - \$5,000 = \text{Amount Owed}$   
1992 Escalation Index = 1.0  
1992 Amount Owed = \$70,000

Place the land and access easements under control of the Department of Wildlife retaining the right to enter upon the property for the purpose of inspection.

Committed to Service

The Department of Wildlife Agrees to:

Maintain the wildlife mitigation lands in accordance with the Corps of Engineers' Operations and Maintenance Manual.

Support the title transfer and corresponding FERC license amendment and indicate to the FERC and other agencies that this agreement resolves all wildlife mitigation needs for the existing Wynoochee Project including hydro power for the period of the license.

Agree that the Department of Wildlife will not hold the Cities responsible for wildlife mitigation replacement lands if such are needed due to shifting river channels.

By signing this letter of intent all parties agree that this forms the basis for an agreement/contract which has many technical issues to consider, such as Aberdeen's ownership of the land, insurance, liability, successorship, default, etc. The signatories of this letter will work in good faith toward that end attempting to have a legally acceptable agreement drafted by April 30, 1992.

SHF/kn

Gary E. Johnson  
Gary E. Johnson  
City of Tacoma  
Department of Public Utilities

3/25/92  
Date

Robert Salmen  
Robert Salmen  
City of Aberdeen  
Department of Public Works

3/25/92  
Date

Samuel C. Ringer  
Name  
State of Washington  
Department of Wildlife  
Comptroller

3/31/92  
Date

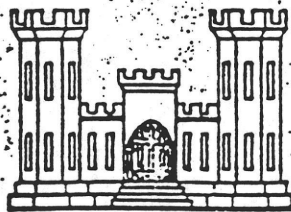
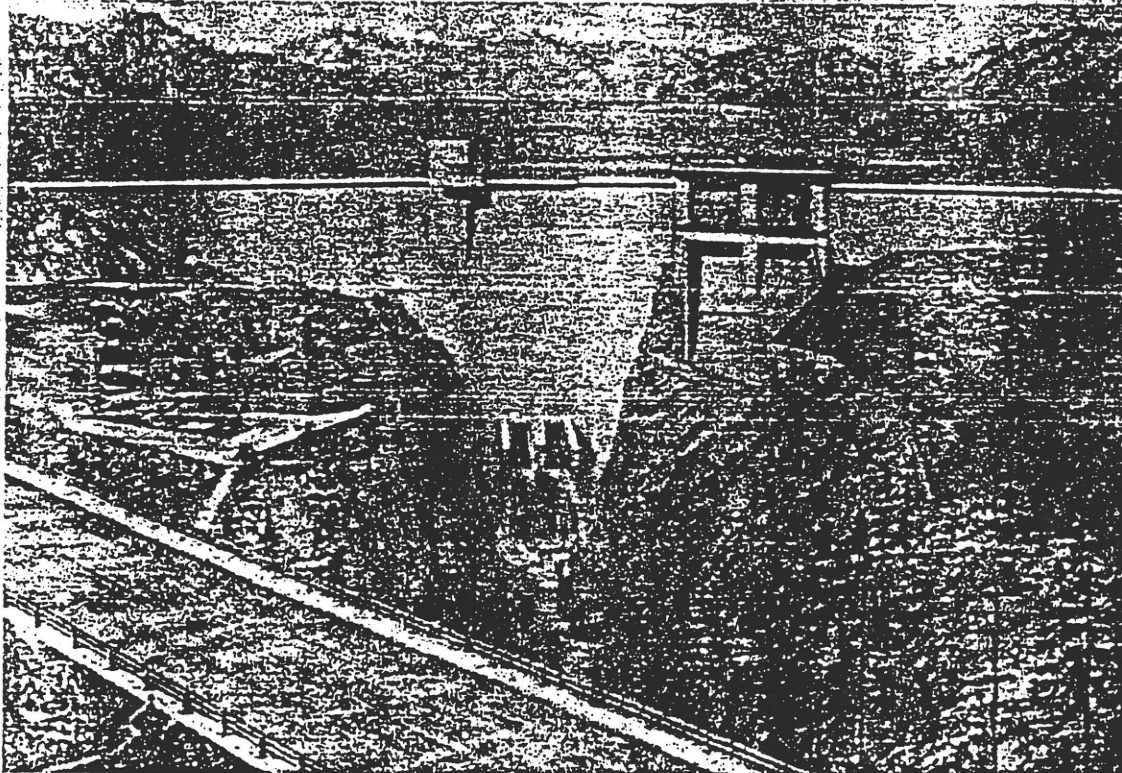
for Patricia McLarn

# WYNOOCHEE LAKE PROJECT

Wynoochee River, Washington

SUPPLEMENT 2 TO  
DESIGN MEMORANDUM 9

## FISH AND WILDLIFE (WILDLIFE LAND MITIGATION)



U. S. ARMY  
CORPS OF ENGINEERS  
SEATTLE DISTRICT  
MARCH 1975

## SYNOPSIS

As a result of inundation of 1,170 acres of land behind Wynoochee Dam, approximately 1,030 acres have been acquired in fee and easements for wildlife mitigation. The acquired land is 8 to 11 miles downstream from the dam and in four areas. A total of 250 acres within the four wildlife areas were developed during the summer of 1972 for wildlife rangeland and are being farmed by Washington Department of Game (WDG) under contract with the Seattle District. WDG has evaluated the rangeland development and concluded that with completion of access road development and continued farming, the objective in mitigating wildlife land losses inundated by Wynoochee Lake will have been successfully achieved. Costs of mitigation actions to date are about \$500,000 for real estate acquisition and \$246,000 for rangeland development. Remaining mitigation actions recommended in this supplement are estimated to cost \$772,000 and include development of access roads to and in the rangelands and annual farming of the areas and maintenance of the roads. The access road development is estimated to cost \$192,000. Annual road maintenance cost is estimated at \$3,400 and the annual farming cost is estimated at \$30,800 with capitalized costs of \$58,000 and \$522,000 respectively.

## WYNOCHEE LAKE PROJECT

### SUPPLEMENT 2 to DESIGN MEMORANDUM 9

1. Introduction. This supplement presents a detailed discussion of Wynoochee Lake Project wildlife mitigation including the status of wildlife mitigation, development of rangelands, development of access roads, additional land requirements and operation and maintenance requirements for access roads and rangeland farming. The purpose of this supplement is to obtain approval (a) of a plan for development of access roads to the wildlife rangelands, (b) of a plan for rangeland management, (c) of estimated costs for operation and maintenance of the access roads and rangeland farming, and (d) to contract with Washington Department of Game (WDG) for construction of the access roads, for operation and maintenance of access roads and for rangeland farming.

2. Prior reports.

a. Design Memorandum 9, Fish and Wildlife, Wynoochee Reservoir Project, Washington, dated 20 July 1967. Design Memorandum 9 presented fish and wildlife evaluations and proposals including a recommendation for acquisition of suitable lands for big game range to mitigate loss of about 1,170 acres of wildlife habitat inundated by Wynoochee Lake. Estimated first cost was \$221,000 for real estate and development plus \$3,000 annually for operation and maintenance. By 2nd Indorsement, ENG CW-EZ, dated 3 April 1968, OCE approved the design memorandum provided that NPD comments were satisfied. The indorsement recommended an economic analysis to determine if additional lands to be managed for wildlife purposes by the Corps of Engineers would be the least costly means of mitigating big game losses.

b. A NPSEN-PL-ER letter, subject: Wynoochee Dam and Reservoir Project - Mitigation of Losses of Wildlife Lands, dated 4 January 1971, discussed alternative wildlife mitigation plans and recommended adhering to the Design Memorandum 9 plan, i.e., acquisition of land for wildlife purposes. By 2nd Indorsement, ENG RE-AP, dated 5 February 1971, OCE concurred with this recommendation (see exhibit A).

c. Letter Supplement 2 to Design Memorandum 6, subject: Mitigation of Wildlife Lands, Wynoochee Dam and Reservoir Project, dated 14 April 1971, recommended acquiring the areas and estates, and approved the values of state and privately-owned land to replace the loss of wildlife habitat caused by Wynoochee Lake. The supplement was approved by OCE 2nd Indorsement, ENG RE-AP, dated 22 June 1971. Part of the wildlife lands were obtained in fee and the other part through easement.

d. Wynoochee Lake Project water supply contract with city of Aberdeen executed 16 August 1967, provides for the city to fund its proportionate share of all joint project costs including operation and maintenance. This proportionate share is about 78 percent.

3. Wildlife mitigation plan. The approved Design Memorandum No. 9 plan provides for mitigating the loss of wildlife habitat and rangeland inundated by Wynoochee Lake. The basis of the approved plan was the recommendation by the Bureau of Sport Fisheries and Wildlife (BSFW), now Fish and Wildlife Service, that the Corps of Engineers acquire about 1,040 acres of suitable grazing land downstream of the dam and provide funds to WDG for administration of these lands. The BSFW wildlife plan, dated 26 June 1967, was part of an overall Wynoochee fish and wildlife study prepared by the BSFW with assistance from Washington Department of Fisheries (WDF), Washington Department of Game (WDG) and the U.S. Forest Service (USFS).

4. Status of wildlife mitigation actions. Acquisition of rangeland was authorized by Design Memorandum No. 6, as supplemented, and all real estate actions have been completed except for final access road easements. Four rangeland areas were acquired with about 520 acres in fee and about 510 acres in perimeter easement for escape cover. Total land costs to date are about \$500,000, including administrative costs. Access routes for operation and maintenance have been tentatively established and perpetual easements have been acquired for 17 miles of private road (Donovan-Corkery Road) for access to wildlife areas on the west side of Wynoochee River and about 2 miles of road on the east side of Wynoochee River. Additional easements at a nominal cost will be required for about 4.3 miles of access road connecting Wishkah Road and Donovan-Corkery Road to area III.

clearing some  
of this.

5. The four developed rangeland areas are shown on plate 1 and are referred to as areas I through IV, with area I being the northernmost and the other areas numbered consecutively downstream to the south. All of the areas border on the Wynoochee River and are separated by a minimum of 1/2 mile. Area I is on the east side (left bank) of the river, 1-1/2 miles north of area II and 4 miles north of area IV. Areas II, III, and IV are all on the west side (right bank) of the river. There are existing construction roads and trails to all of the areas.

6. Initial rangeland development consisting of clearing, grubbing, piling slash, discing, seeding, and fertilizing was started during the summer of 1972 under contract by the Seattle District. WDG assisted in both planning and inspecting the work. The developed area, about 250 acres within the 520 acres acquired in fee, fulfills



E. E. COATES, DIRECTOR  
3628 South 35th Street  
P.O. Box 11007  
Tacoma, Washington 98411  
(206) 383-2471

DIVISIONS  
Light  
Water  
Belt Line

December 24, 1991

Mr. Dave Gufler  
Department of Wildlife  
905 East Heron Street  
Aberdeen, Washington 98520

Dear Mr. <sup>Dave</sup>Gufler:

Enclosed is a signed copy of the *Agreement for Mitigation and Enhancement at Wynoochee Dam*.

We appreciate your help on this agreement. It has taken some time to negotiate and put together. A copy of the signed agreement has been sent to the Corps of Engineers.

Very truly yours,

A handwritten signature in cursive script, appearing to read 'Gary', is written above the typed name.

G. E. Johnson  
Asst. Systems Engineering Manager  
Light Division

Enclosure



**AGREEMENT FOR  
MITIGATION AND ENHANCEMENT  
AT  
WYNOOCHEE DAM**

**THIS AGREEMENT** is made and entered into by and between the Cities of Aberdeen and Tacoma, herein referred to as the Cities, and the Washington State Departments of Wildlife and Fisheries, the U.S. Fish and Wildlife Service, the U.S. Forest Service, the Quinault Indian Nation, and the Confederated Chehalis Tribe, herein referred to as the Agencies.

**WHEREAS**, the Cities desire to mitigate for impacts associated with implementation of a new higher reservoir rule curve (Exhibit A); and

**WHEREAS**, the Cities desire to voluntarily pursue resolution of past mitigation issues on the Wynoochee Project; and

**WHEREAS**, the Cities desire to voluntarily enhance fisheries and wildlife resources; and

**WHEREAS**, the Corps of Engineers previously mitigated for lost spawning areas within the entire reservoir perimeter; and

**WHEREAS**, the Cities are pursuing transfer of title from the Corps of Engineers to the City of Aberdeen; and

**WHEREAS**, the Agencies desire to protect, preserve, and enhance fisheries and wildlife resources.

**NOW THEREFORE**, the parties hereto agree as follows:

**1. MITIGATION OF NEW RESERVOIR RULE CURVE**

The Cities agree to replace in value, by payment of \$6,000 to the U.S. Forest Service, the elk forage planted in the Wynoochee Reservoir. The U.S. Forest Service shall be responsible for using this money to create additional elk forage.

**2. RESOLUTION OF PAST MITIGATION ISSUES ON THE WYNOOCHEE PROJECT**

The Cities agree to pursue through the ongoing title transfer legislation, funds to construct and operate a hatchery as described in Exhibit B. Should the title transfer effort fail or Congress not approve the method of funding the hatchery, the Agencies will pursue resolution of past mitigation with the owner of Wynoochee Dam.

The goal of the hatchery is to annually produce the following: 1) a total of 1209 adult Coho Salmon, which may require an annual release of approximately 55,700 Coho Salmon yearling smolts weighing 16 fish/pound; and 2) a total of 254 adult steelhead, which may require an annual release of approximately 25,000 steelhead yearlings weighing 5 to 6 fish/pound. 7

The Cities further agree to design and construct said hatchery with said funds since construction may be significantly less expensive as a part of the major contract for construction of the hydroelectric project. A separate optional bid will be included in the contract to permit the Departments of Fisheries and Wildlife the option to proceed with or be paid the available funds and proceed on their own. It is understood that when the bids are received, there will only be a very short time period to make a decision and to enter into an agreement to implement an option.

### **3. ENHANCEMENT OF FISHERIES RESOURCES**

The Cities agree to commence studies within six months of title transfer to determine if the spring refilling flood control rule curve may be modified to allow earlier refilling, thus making more water available to improve passage conditions through the Wynoochee Reservoir for out-migrating fish during the period of April 15 to June 30 of each year. This action will require approval of the Corps of Engineers and they have indicated studies may take eight months and environmental evaluation another year. The Cities agree to pursue the issue as expeditiously as allowed.

The Cities agree to enter into a Water Release Agreement with the Washington State Departments of Wildlife and Fisheries to improve passage conditions through the Wynoochee Reservoir for out-migrating fish during the period of April 15 to June 30 of each year (see Agreement for Water Release at Wynoochee Dam). The initial agreement shall be executed concurrently with this agreement and future modifications are subject to conditions as specified in that agreement.

### **4. AGENCIES AGREEMENT**

The Agencies agree to support the establishment of a new reservoir rule curve shown in Exhibit A (see attached copy) and agree that no further studies or mitigation for the new rule curve is necessary based on the measures contained in this agreement.

The Agencies agree that the future study for a refill flood control rule curve modification will merely permit enhancement of fisheries and the results of that study are not needed for proceeding with the hydroelectric development or fee title transfer.

The Agencies agree that the successful implementation of the elements identified in this agreement resolve all mitigation claims for past damages on the Wynoochee Project. The agencies may request additional mitigation and/or enhancement when the Project is relicensed with the Federal Energy Regulatory Commission (FERC).

The Agencies agree that if the total funding as specified in Exhibit B (see attached copy) is received by the Washington State Departments of Fisheries and Wildlife, said amounts are sufficient to construct the desired hatchery and operate the hatchery through the licensed period (September 9, 2037). The facility shall be owned, operated, and maintained by the Washington State Departments of Fisheries and Wildlife until the end of the licensed period. Therefore, the Agencies hereby release the Cities from all further obligations related to the fish hatchery, or its annual juvenile production, or annual adult returns, as proposed, until the end of the licensed period (September 9, 2037). X

## **5. RESOLUTION OF DISPUTES**

Any dispute among the Parties concerning compliance with this Settlement Agreement shall first be referred to the Wynoochee Fishery Advisory Committee (WFAC) for consideration. The WFAC shall be composed of one representative from the City of Tacoma, the City of Aberdeen, the Washington Department of Fisheries, the Washington Department of Wildlife, the Quinault Indian Nation, and the Confederated Chehalis Tribe. The WFAC shall convene as soon as practicable following a written request by any Party. All decisions of the WFAC must be by consensus of all WFAC representatives. In the event the Committee cannot resolve the dispute within ninety (90) days after its first meeting on said dispute, the WFAC will give notice of its failure to resolve the dispute to all Parties. Upon receipt of such notice, the chief executive officer (CEO) for each party hereto shall meet and attempt to resolve the dispute. If the CEOs cannot resolve the dispute within 30 days after their initial meeting, the issue in dispute may be referred to the FERC for resolution pursuant to the FERC's Rules of Practice and Procedure.

Upon request by any Party, any dispute not resolved by consensus of the WFAC shall, prior to referral to the FERC, be submitted to a mutually agreeable third party for decision, pursuant to procedures established by the Parties. The arbitrator shall develop a written record of the proceedings, including all submissions by the parties. The decision of the arbitrator shall be nonbinding and subject to de novo FERC review. The record of the arbitration proceedings may be submitted to FERC by any Party unless otherwise agreed.

This agreement shall not be construed to supplant conditions of the FERC license, limit agencies review of construction plans and mitigation for construction issues, or limit review and conditions subsequent to ongoing surveys for the Spotted Owl and Bald Eagles.

This agreement shall have no effect on the existing collection and transportation of fish in the watershed, management of elk mitigation lands, or any existing operations prescribed by the Corps of Engineers.

This agreement shall be binding on heirs, successors, or assigns.

STATE OF WASHINGTON  
DEPARTMENT OF WILDLIFE

Curt Smith 11/15/91  
NAME DATE

STATE OF WASHINGTON  
DEPARTMENT OF FISHERIES

Judith Merchant 10-18-91  
NAME Deputy Dir DATE

CONFEDERATED CHEHALIS TRIBE

Dan Benson  
NAME DATE

QUINULT INDIAN NATION

Jim Hays 12/12/91  
NAME DATE

CITY OF ABERDEEN  
DEPARTMENT OF PUBLIC WORKS

Mayor Dean Williamson 9/23/91  
NAME DATE

CITY OF TACOMA  
DEPARTMENT OF PUBLIC UTILITIES  
LIGHT DIVISION

E E [Signature] 10/9/91  
NAME DATE

Approved as to form & legality:

Mark Bullock  
Asst. City Attorney Page 4 of 4

**AGREEMENT FOR  
WATER RELEASE  
AT  
WYNOOCHEE DAM**

**THIS WATER RELEASE AGREEMENT** is made and entered into by and between the Cities of Aberdeen and Tacoma, herein referred to as the Cities, and the Washington State Departments of Wildlife and Fisheries, herein referred to as the State; and

**WHEREAS**, the Cities voluntarily desire to improve passage conditions through Wynoochee Reservoir for out-migrating fish during the period of April 15 to June 30 of each year; and

**WHEREAS**, a new higher reservoir refill rule curve, herein referred to as the new refill rule curve, for flood control purposes may be established upon completion of studies by the U.S. Army Corps of Engineers, replacing the existing refill rule curve (Exhibit A); and

**WHEREAS**, as a result of operating to this new refill rule curve, refill requirements may be reduced and it may be possible to increase project outflows during the refill period (March through June) without undue impact to other project purposes; and

**WHEREAS**, the State believes that increased flows from the project improve passage conditions through Wynoochee Reservoir for out-migrating fish.

**NOW THEREFORE**, the parties hereto agree as follows:

During the reservoir refill period of March 15 to April 15 of each year the Cities agree to operate the project as follows:

1. When the reservoir is between the two rule curves, the Cities will regulate the reservoir prudently and will not draft the reservoir unless minimum required outflows produce that effect.
2. When the reservoir is below the existing refill rule curve, the Cities will limit releases to the minimum required outflow in order to expedite refill.
3. When the reservoir is above the new refill rule curve, the Cities will regulate outflows in accordance with current and forecast hydrometeorological conditions, in order to provide flood control.

During the proposed hydroelectric project shutdown period of April 15 to June 30 of each year, the Cities agree to operate the project as follows:

1. When the reservoir is between the two rule curves, the Cities will regulate outflow to produce maximum sustained outflows while maintaining a high probability of refilling the reservoir by May 1 of each year.
2. When the reservoir is below the existing refill rule curve, the Cities may limit releases to the minimum required outflow, in order to expedite refill.
3. When the reservoir is above the new refill rule curve, the Cities will regulate outflows in accordance with current and forecast hydrometeorological conditions, in order to provide flood control.
4. The Cities agree to facilitate fish passage by using the low level low-flow conduit(s) nearest the reservoir surface for the water release.

Nothing in this agreement shall be construed to take precedence over any existing agreement or requirement for flow releases or reservoir regulation on the Wynoochee Dam Project.

This agreement constitutes an enhancement by the Cities and is not part of any current requirement for mitigation of damages to fisheries.

Mean daily discharge and temperatures shall be reported quarterly by the Cities to the Department of Fisheries or be made available upon request by the Cities and is not part of any current requirement for mitigation of damages to fisheries.

The goal of this agreement is to improve passage conditions through Wynoochee Reservoir for out-migrating fish during the period from April 15 through June 30 of each year by increasing the project outflows during that period, insofar as it does not unduly impact refill, flood control, or other project purposes.

The intent of this agreement is to reserve a share of additional water for that purpose by maintaining the average reservoir elevation on April 15 of each year at or above the midpoint between the two rule curves.

With this goal in mind, a trial period for this operating agreement will exist for five years after which the staff of the Cities and State agencies may at any time reopen negotiations concerning operational adjustments to achieve the intent. Operational adjustments shall not be unreasonably refused so long as the intent can still be achieved.

This agreement shall run for the term of the Cities' license with the Federal Energy Regulatory Commission.

CITY OF ABERDEEN  
DEPARTMENT OF PUBLIC WORKS

STATE OF WASHINGTON  
DEPARTMENT OF FISHERIES

Mayor Olan Williamson 9/28/91  
NAME DATE

Judith Merchaus 10-18-91  
NAME Deputy Dir DATE

CITY OF TACOMA  
DEPARTMENT OF PUBLIC UTILITIES  
LIGHT DIVISION

STATE OF WASHINGTON  
DEPARTMENT OF WILDLIFE

[Signature] 10/4/91  
NAME DATE

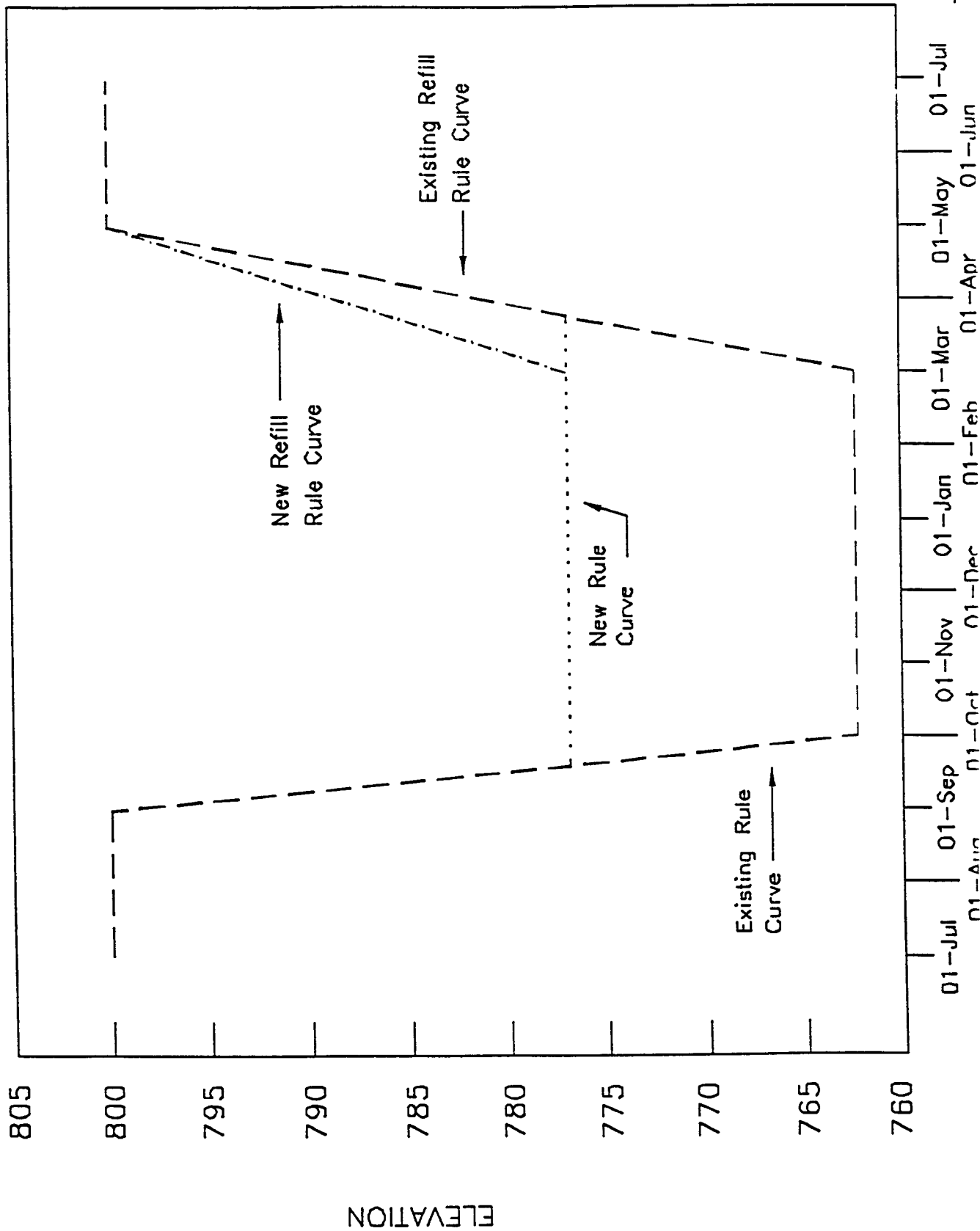
Carl Smith 11/15/91  
NAME DATE

Approved as to form & legality:

[Signature]  
City Asst. City Attorney



# WYNOOCHEE RESERVOIR FLOOD CONTROL RULE CURVE



# PROPOSED WYNOOCHEE LAKE HATCHERY FACILITIES

## Schedule of Structures & Infrastructure

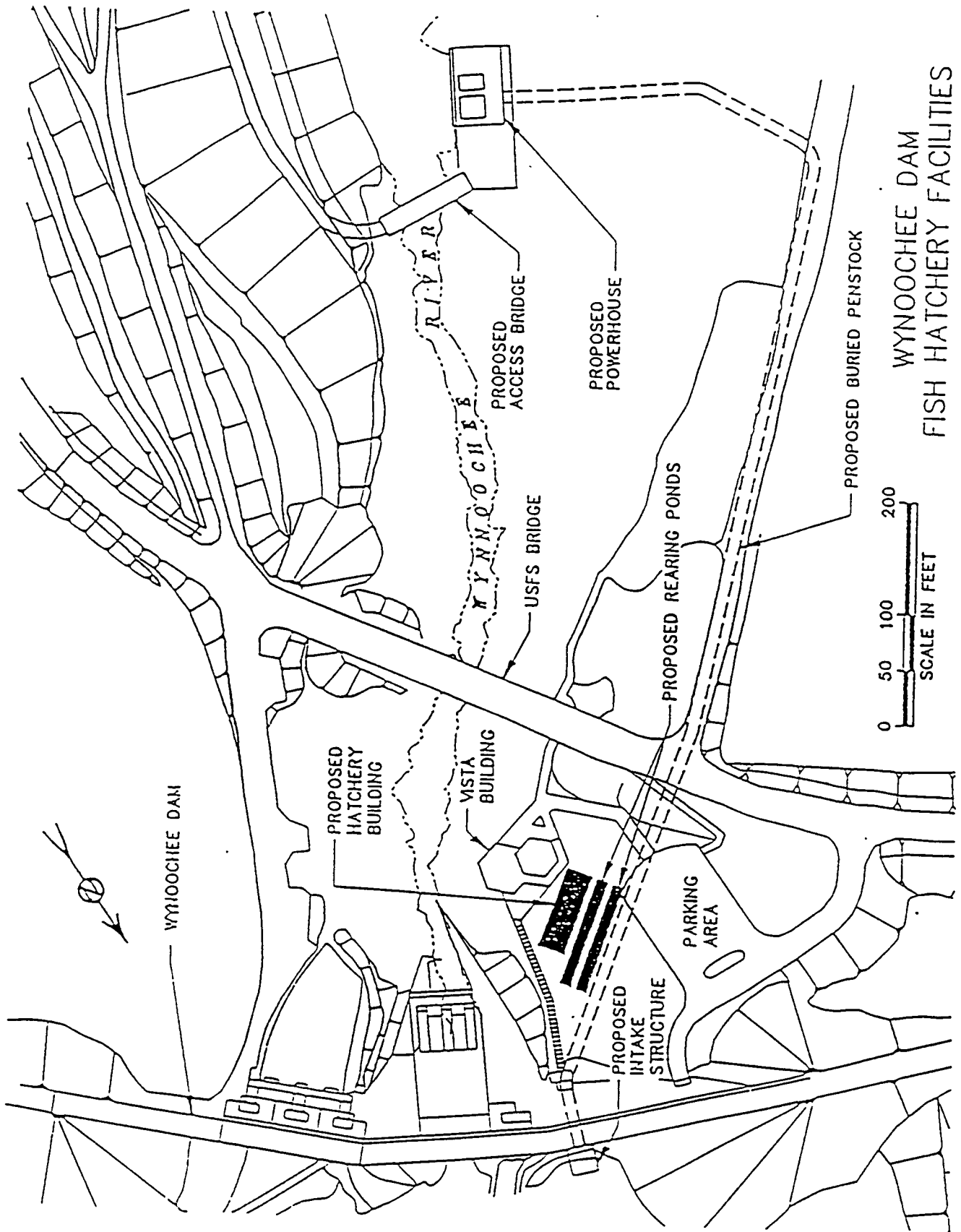
- 1) Hatchery Building: Facility for the fertilization and incubation of eggs. Building would also provide room for food storage and an office.
- 2) Two Rearing Ponds: Two rearing ponds would provide growing space for over 80,000 juvenile fish.
- 3) Adult Ponds: The adult ponds would provide holding a space for adult salmon while they mature, eggs can only be taken from mature fish.
- 4) Piping and Tower: Piping and degassing tower would provide a good quality water supply to hatchery facilities.
- 5) Water Treatment: Pollution abatement facilities during annual pond cleaning.
- 6) Miscellaneous Items: Additional costs for the facility include:  
Road improvements,  
Power hook-up,  
Site clearing and improvement,  
Domestic water supply,  
Security and lighting,  
Tools and equipment and  
Large walk-in freezer for fish food.
- 7) Operations and Maintenance: Annual operation and maintenance costs include \$39,600 for a full-time fisheries manager, seasonal night-guard during adult holding season and \$5,000 for fish food.



STATE OF WASHINGTON  
DEPARTMENT OF FISHERIES  
ENGINEERING DIVISION

PRELIMINARY COST ESTIMATE

PROJECT TITLE		Wunoochee Alternative (Revised)		Gravity Water Supply	
LOCATION		Adjacent to Wunoochee Powerhouse			
Note: Revised cost estimate from 2-15-91					
ESTIMATED BY		J. Peck		CHECKED BY	
ITEM NO.	DESCRIPTION	ESTIMATED QUANTITY	UNIT	UNIT PRICE MAT. & LAB.	ESTIMATED AMOUNT
1	10' x 100' x 4' deep SH. Con. Race	2	-	-	120,000
2	Hatchery Bldg. 1000 sq. ft.	1			60,000
3	Piping incl. Deger. Towers	1			20,000
4	Power				3,000
5	Clear / Gravel / Gravel				2,000
6	Security & Area Lighting				4,000
7	Domestic Wtr. & Septic				8,000
8	Site Improvements				5,000
9	Misc. Tools & Equipment				10,000
10	Adult Pond 20' x 15' x 4'	1			15,000
11	Pollution Abt. Band / Pump / Test Kit	1			25,000
12	Freezer Unit 12 cu. ft.	1			8,000
				Sub-Total	297,000
	20% Cont.				60,000
	15% Design / Insp.				54,000
	7.5% Sales Tax				28,000
				Total	440,000



# WYNOOCHEE DAM FISH HATCHERY FACILITIES

WYNOOCHEE DAM MITIGATION - ALTERNATIVE GRAVITY SUPPLY HATCHERY  
ANALYSIS OF ANNUAL OPERATIONS AND MAINTENANCE COSTS

YR #	YEAR	O & M COST W/O ESCALATION	O & M COST ESCALATED @ 4.00%	INTEREST EARNED ON O&M RESERVE ACCT. @ 8.25%	BALANCE OF O&M RESERVE ACCT WITH START BAL @ \$734,000
1	1992			\$60,555	\$794,555
2	1993			\$65,551	\$860,106
3	1994	\$39,600	\$42,831	\$70,959	\$888,233
4	1995	\$39,600	\$44,545	\$73,279	\$916,968
5	1996	\$39,600	\$46,326	\$75,650	\$946,291
6	1997	\$39,600	\$48,179	\$78,069	\$976,181
7	1998	\$39,600	\$50,107	\$80,535	\$1,006,609
8	1999	\$39,600	\$52,111	\$83,045	\$1,037,543
9	2000	\$39,600	\$54,195	\$85,597	\$1,068,945
10	2001	\$39,600	\$56,363	\$88,188	\$1,100,770
11	2002	\$39,600	\$58,618	\$90,814	\$1,132,966
12	2003	\$39,600	\$60,962	\$93,470	\$1,165,473
13	2004	\$39,600	\$63,401	\$96,152	\$1,198,224
14	2005	\$39,600	\$65,937	\$98,853	\$1,231,141
15	2006	\$39,600	\$68,574	\$101,569	\$1,264,135
16	2007	\$39,600	\$71,317	\$104,291	\$1,297,109
17	2008	\$39,600	\$74,170	\$107,012	\$1,329,951
18	2009	\$39,600	\$77,137	\$109,721	\$1,362,535
19	2010	\$39,600	\$80,222	\$112,409	\$1,394,722
20	2011	\$39,600	\$83,431	\$115,065	\$1,426,355
21	2012	\$39,600	\$86,768	\$117,674	\$1,457,261
22	2013	\$39,600	\$90,239	\$120,224	\$1,487,245
23	2014	\$39,600	\$93,849	\$122,698	\$1,516,094
24	2015	\$39,600	\$97,603	\$125,078	\$1,543,570
25	2016	\$39,600	\$101,507	\$127,344	\$1,569,407
26	2017	\$39,600	\$105,567	\$129,476	\$1,593,316
27	2018	\$39,600	\$109,790	\$131,449	\$1,614,975
28	2019	\$39,600	\$114,181	\$133,235	\$1,634,029
29	2020	\$39,600	\$118,749	\$134,807	\$1,650,088
30	2021	\$39,600	\$123,499	\$136,132	\$1,662,721
31	2022	\$39,600	\$128,439	\$137,175	\$1,671,457
32	2023	\$39,600	\$133,576	\$137,895	\$1,675,776
33	2024	\$39,600	\$138,919	\$138,252	\$1,675,109
34	2025	\$39,600	\$144,476	\$138,196	\$1,668,829
35	2026	\$39,600	\$150,255	\$137,678	\$1,656,253
36	2027	\$39,600	\$156,265	\$136,641	\$1,636,629
37	2028	\$39,600	\$162,516	\$135,022	\$1,609,135
38	2029	\$39,600	\$169,016	\$132,754	\$1,572,872
39	2030	\$39,600	\$175,777	\$129,752	\$1,526,857
40	2031	\$39,600	\$182,808	\$125,966	\$1,470,015
41	2032	\$39,600	\$190,120	\$121,276	\$1,401,170
42	2033	\$39,600	\$197,725	\$115,597	\$1,319,042
43	2034	\$39,600	\$205,634	\$108,821	\$1,222,228
44	2035	\$39,600	\$213,860	\$100,834	\$1,109,203
45	2036	\$39,600	\$222,414	\$91,509	\$978,298
46	2037	\$39,600	\$231,311	\$80,710	\$827,697
47	2038	\$39,600	\$240,563	\$68,285	\$655,419
48	2039	\$39,600	\$250,185	\$54,072	\$459,305
49	2040	\$39,600	\$260,193	\$37,893	\$237,005
50	2041	\$39,600	\$270,601	\$19,553	(\$14,042)
TOTALS		\$1,900,800	\$5,964,833	\$5,216,790	

2 PM

UNITED STATES OF AMERICA  
FEDERAL ENERGY REGULATORY COMMISSION

City of Aberdeen, Washington  
and City of Tacoma, Washington

Project No. 6842-001

ORDER ISSUING LICENSE  
(Major Project - Existing Dam)

SEP 09 1987

The City of Aberdeen, Washington and the City of Tacoma, Washington have filed a license application under Part I of the Federal Power Act (Act) to construct, operate, and maintain the Wynoochee Dam Project, located in Grays Harbor County, Washington, on the Wynoochee River. The project would occupy lands of the United States within the Olympic National Forest and would use surplus water or water power from a government dam.

Notice of the application has been published. The National Marine Fisheries Service (NMFS) has filed a motion to intervene and a petition to reject license application and the Washington Department of Fisheries and Department of Game (F&G) have also filed a motion to intervene in this proceeding. No protests or other motions to intervene were filed in this proceeding. Comments received from interested agencies and individuals have been fully considered in determining whether to issue this license, as discussed below.

In the motion to intervene and petition to reject license application, NMFS states that the purpose of its intervention is to ensure that existing and potential anadromous fishery production in the Wynoochee River is fully protected from any adverse effects of hydroelectric project construction, and that the license application should be rejected until full consultation and resolution of these fishery issues has occurred. NMFS also specifies license conditions for fish passage facilities under section 18 of the Federal Power Act.

In a letter filed May 12, 1987, with the Commission, NMFS states that the concerns identified in the motion to intervene of May 20, 1986, have been resolved, and therefore NMFS no longer recommends rejection of the license application, subject to mandatory license conditions for fish passage.

These issues are addressed on page 11, under Fishery Resources in the attached Environmental Assessment (EA).

F&G states that construction of the project could adversely affect salmon and anadromous and/or resident game fish and wildlife. These concerns are addressed in the attached EA, under the section on Fishery Resources on page 11.

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## Recommendations of Federal and State Fish and Wildlife Agencies

Section 10(j) of the Act, as amended by the Electric Consumers Protection Act of 1986 (ECPA), Pub. L. 99-495, requires the Commission to include license conditions based on recommendations of federal and state fish and wildlife agencies for the protection, mitigation, and enhancement of fish and wildlife. The Environmental Assessment (EA) for the Wynoochee Dam Hydroelectric Project, dated May 11, 1987, addressed the primary concerns of the federal and state fish and wildlife agencies and made recommendations consistent with those of the agencies.

The EA was forwarded to the U.S. Fish and Wildlife Service (FWS) by letter of May 15, 1987, as a biological assessment, pursuant to Section 7 of the Endangered Species Act (ESA), for the bald eagle. By letter of June 23, 1987, FWS responded under Section 7 of the ESA and made several recommendations and requested that they be addressed under Section 10(j) of the Act.

Consistent with section 10(j)(2) of the Act, the Commission staff succeeded in resolving the differences between FWS's fish and wildlife recommendations and the staff's recommendations as reflected in the revised EA (dated August 6, 1987), which is attached to and made part of this license. The FWS's concerns and the staff's responses are summarized as follows.

1. EA Revisions: FWS recommends several revisions to the EA of May 11, 1987. Revision of the EA is not a 10(j) matter because it does not represent a specific fish and wildlife mitigative measure; however, the FWS and the licensee have presented additional information on specific fish and wildlife issues, which merit additional consideration under the National Environmental Policy Act (NEPA) process. The staff has made several revisions to the EA in order to clarify these issues as summarized below.
  - a. FWS favors an alternative to the west bank powerhouse access road, which would involve access from the east bank to a bridge. The east bank access alternative would lessen impacts to potential perch trees for the bald eagle and would avoid the degree of erosion and sedimentation associated with excavation of an access road along the steep west bank of the river. The licensee agrees to implement the east bank alternative. FWS recommends revising the EA to include discussion and analysis of the impacts associated with the east bank access alternative. The staff has revised the appropriate sections of the EA.
  - b. FWS expresses concern regarding the impacts of turbidity and sedimentation on fish habitat, anadromous fish migration, and water quality from downcutting through sediment deposits at the



head of the reservoir during drawdown, construction of the access bridge, and other construction activities. FWS recommends that mitigative measures for sedimentation and turbidity-related impacts be discussed in the EA. The staff has revised the appropriate sections of the EA.

- c. FWS states that road construction along the west bank would require slope excavation and that the portion of the west bank access within the existing borrow area should not be considered mitigation. The staff has revised the appropriate sections of the EA. Further, article 413 requires construction of the access road alternative that utilizes the east bank.
  - d. The original EA states that snag trees would be avoided; FWS states that it would not be entirely feasible to avoid all snag trees. The licensee's biological assessment for the bald eagle and subsequent letter of July 2, 1987, concur and clarify this issue. The staff has revised the EA accordingly.
  - e. FWS provides additional information on the vegetation and wildlife resources of the existing borrow-pit area and requests that the EA reevaluate the impacts to the borrow-pit area. The staff has revised the EA accordingly.
  - f. FWS states that the description of vegetation at the powerhouse site should be revised to discuss the existence of potential perch sites for bald eagles and to indicate that FWS finds the west bank alternative unacceptable. The staff has revised the EA to clarify this point and to reference the discussion on bald eagles, which discusses the issue in more detail.
2. Feasibility of Access Alternatives: FWS recommends that the feasibility of both access alternatives should be addressed. This recommendation is outside the scope of Section 10(j) because it does not involve specific fish and wildlife mitigative measures; however, the EA has been revised to provide an analysis of both alternatives. Further, the licensee, by letter of July 2, 1987, states that both the west bank and east bank alternative access routes are feasible from engineering and economic perspectives. The licensee further states that the east bank alternative presents less risk of environmental impact than the originally proposed west bank alternative.
3. Agency Acceptance of the East Bank Access Alternative: FWS also requests the staff to consider if the Corps of Engineers (Corps) or the Forest Service (FS) might object to the east bank alternative. This request is outside the scope of Section 10(j) because it is not a specific recommendation for a fish and wildlife mitigative measure; however, this issue has been considered by the staff. The Corps, by letter of June 25, 1987, states that it has no objection to the the east bank

alternative, but reserves final approval until review of the final design and construction plans.

The FS, by letter of July 14, 1987, states that it has no objection to the bridge and east bank access alternative, but adds that road closures may be necessary to discourage public access to the river and reduce the potential for personal injury. The licensee, by letter of July 15, 1987, proposes to consult with the FS and the Corps, during the final project design, regarding public safety. Article 413 requires the licensee to file functional design drawings of any access restrictions or other public safety facilities along with comment letters from the FS and the Corps.

4. Wildlife Planting Schedule: FWS recommends that a detailed wildlife planting schedule be developed for the project, which would include species, densities, spatial placement, and maintenance requirements over the life of the project. This mitigative measure is the subject of article 410. The staff has revised the vegetation discussion in the EA to reflect the requirements of article 410.
5. Timing of Construction: FWS questions the proposed timing of reservoir drawdown, and whether project construction could be accomplished in the 4 month period (July 1 through October 30) when migrating anadromous fish would not be affected. The licensee acknowledges that the project could not be constructed in such a restricted schedule and proposes to limit all streamside construction activities to the 4 month period, with upland work carried out at other times. The staff concludes that such a construction schedule, combined with strict erosion control measures, would effectively limit the impacts of turbidity and sedimentation on migrating fish. This issue is described in the revised EA. Article 405 requires the licensee to submit a construction schedule that restricts streamside construction to July 1 through October 30. In addition, article 401 requires the licensee, following agency consultation, to file an erosion control plan with the Commission prior to any land-disturbing activities.
6. Outmigration of Smolts: FWS states that because the project turbines will not operate during the downstream smolt migration period, with smolts bypassing the turbine through the existing outlet gates, no monitoring of the outmigration efficiency of the new intakes is needed. The staff concurs with FWS that no monitoring of passage efficiency through the new intakes is needed at this time. Any future proposal by the licensee to use the intake system during the smolt emmigration period would require an application for an amendment to the license and a study of the efficiency of the new intake would be needed at that time.

Under Section 18 of the Act, the FWS and the NMFS prescribed the turbine shutdown and fish bypass period of April 15 through June 30. Although project operation may not be within the confines of section 18, the shutdown period would protect downstream migrating smolts and is, therefore, required by article 406.

Monitoring of downstream anadromous fish movements is prescribed by NMFS under section 18 of the Act to ensure that the prescribed period of downstream turbine bypass adequately protects down-running salmon and steelhead. The results of this monitoring would be used to adjust the dates or duration of the shutdown and downstream fish bypass period to correspond to observed migration periods. Although monitoring of passage efficiency through the new intakes is not needed at this time, the staff concludes that monitoring of the downstream migration of anadromous fish is needed to ensure protection of salmon and steelhead. Although monitoring may not be within the confines of section 18, monitoring of downstream migration is a requirement of article 407. The EA has been revised to clarify this issue.

7. Bald Eagles: FWS recommends eight mitigative measures to protect bald eagles and states that if these eight measures are incorporated into the license, FWS would concur that the Wynoochee Dam Project will not adversely affect bald eagles and would consider consultation pursuant to § 7(a)(2) of the ESA fulfilled. The eight FWS recommendations are addressed below.

First, FWS recommends that the powerhouse and access road construction should be restricted during the core of the eagle wintering period (January 15 to March 1). The licensee, by letter of July 2, 1987, proposes to conduct a survey of the area prior to construction to more precisely document bald eagle use of the area and concurs with the restriction only if eagle use is documented. The FWS (telephone conversation with Jim Michaels, Endangered Species Specialist, U.S. Fish and Wildlife Service, Olympia, Washington, July 10, 1987) informed the staff that the restriction would not be necessary if eagles are not in the area and that FWS would be agreeable to a survey. The staff has included article 412 to require a winter bald eagle survey, following consultation with FWS. Article 412 further states that if significant use of the powerhouse site by bald eagles is documented, no construction shall occur during the documented use period.

Second, FWS recommends implementation of the east bank access road alternative because it would minimize impacts to potential perch trees along the Wynoochee River. This recommendation has been incorporated into article 413.

Third, FWS recommends that the powerhouse site clearing should not exceed the loss of six large trees or snags (potential perch sites for bald eagles). This figure is consistent with the licensee's Biological Assessment of the Bald Eagle, filed April 1, 1987, which estimates the removal of from four to six potential perch trees at the powerhouse site. By letter of July 2, 1987, the licensee stated that the east bank access would require the removal of from one to two additional large trees (greater than 2 feet d.b.h). If the construction goes as planned, the loss of potential perch trees would be four to eight trees.

The staff consulted with FWS to determine if six trees is a critical factor or represents an impact threshold. FWS replied (telephone conversation with Jim Michaels, Endangered Species Specialist, U.S. Fish and Wildlife Service, Olympia, Washington, July 10, 1987) that six is not a critical number, but that the purpose of their recommendation is to safeguard against unforeseen engineering or slope stability problems that would result in a substantially higher loss of potential perch trees than anticipated by the licensee. For this reason, article 414 requires the licensee to consult with FWS and to prepare a mitigative plan for Commission approval if construction at the powerhouse site requires the removal of greater than "approximately six" potential perch trees.

The FWS's recommendations 4, 5, 6, and 7 deal with measures to avoid collision and electrocution impacts to bald eagles from the project transmission lines. Specifically, these recommendations include burying the transmission lines in areas of old growth trees, using conduit crossings on the bridges spanning Big Creek, East and West Forks Humptulips River, and East Fork Stevens Creek; avoiding aerial crossings of anadromous fish streams; and utilizing a raptor-proof design for above-ground transmission lines. The licensee's Biological Assessment of the Bald Eagle, filed April 1, 1987, generally outlines a plan to follow logging roads, utilize bridge crossings over major streams, and design transmission line poles to prevent raptor electrocution. These measures are incorporated into article 411.

Last, FWS recommends that project operation should not adversely impact anadromous fish, which serve as the primary food source for wintering bald eagles. Articles 401, 402, 403, 404, 405, 406, 407, 408, and 409 have been incorporated into the license to protect the anadromous fish resources of the Wynoochee River.

8. Draft License Articles: FWS recommends that the Commission provide draft license articles to FWS for review and comment prior to inclusion in the license. This recommendation is

outside the scope of Section 10(j) because it does not involve specific measures to protect fish and wildlife. The staff's recommended mitigation is presented in the EA, which is available for public review. The EA generally summarizes the contents of the recommended license articles. Further, the license articles requiring fish and wildlife mitigation routinely require consultation with FWS. The views of the FWS are given full consideration prior to any Commission action on subsequent filings that are required by such articles.

### Comprehensive Plans

Section 10(a)(2) of the Act, as amended by ECPA, requires the Commission to consider the extent to which a project is consistent with comprehensive plans (where they exist) for improving, developing, or conserving a waterway or waterways affected by the project that are prepared by an agency established pursuant to federal law and that has the authority to prepare such plan or by the state in which the facility is or will be located. The Commission considers plans to be within the scope of Section 10(a)(2) only if such plans reflect the preparers' own balancing of the competing uses of a waterway, based on their data and applicable policy considerations (i.e., consider and balance all relevant public use considerations). With regard to plans prepared at the state level, such plans are within the scope of Section 10(a)(2) only if they are prepared and adopted pursuant to a specific act of the state legislature and developed, implemented, and managed by an appropriate state agency. 1/

The Commission has identified a comprehensive plan of the type referred to in Section 10(a)(2) of the Act. 2/ The application is consistent with the goals and policies of this plan.

Four resource plans 3/ that touch on various aspects of waterway management were brought to our attention and have been reviewed in relation to the proposed project as part of our broad

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1/ Fieldcrest Mills, Inc. Proceeding, 37 FERC ¶61,264(1986).

2/ Northwest Power Planning Council's Northwest Conservation and Electric Power Plan - 1986.

3/ Interagency Committee for Outdoor Recreation, Washington's Statewide Comprehensive Outdoor Recreation Plan, 1983; Grays Harbor County Planning Department and Grays Harbor Regional Planning Commission, Comprehensive Parks and Recreation Plan for Grays Harbor County, January 1982; U.S. Department of Agriculture, Forest Service, Pacific Northwest Region, Proposed Land and Resource Management Plan, Olympic National Forest, 1986; and Washington Department of Ecology, Water Resources Management Program-Chehalis River Basin, September, 1980.

The Director orders:

(A) This license is issued to the and the City of Tacoma, Washington (lic years, effective the first day of the m is issued, to construct, operate, and m Project. This license is subject to th the Act, which is incorporated by refer license, and subject to the regulations under the provision of the Act.

*We did not  
receive page 8  
ALS*

(B) The project consists of:

(1) All lands, to the extent of 1 those lands, enclosed by the project b

Exhibit G- FERC Drawing No. 6842-

SHOWING

1	6	Project Boundary Map
2	7	Project Boundary Map

(2) Project works consisting of: (a) an 83-foot-high concrete tower intake structure at elevation 722 feet, 16 feet upstream of the existing Wynoochee Dam having two 12-foot-wide intake portals, the upper portal opening between 770 and 800 feet elevation and the lower portal opening between 722 and 737 feet elevation and trashracks upstream of each portal; (b) a 4-foot-wide walkway connecting the intake structure and the dam; (c) a 1,080-foot-long underground concrete and steel lined power tunnel with a diameter varying from 11 feet to 10 feet; (d) a 92-foot-long, 48-foot-wide, 22-foot-high reinforced concrete powerhouse, located 800 feet downstream of the existing dam, containing two generating units (unit 1 and unit 2) with a total rated capacity of 10,800 kW, producing an estimated average annual energy output of 42.14 GWh, and butterfly valves above each turbine to allow complete shutoff capability; (e) flows from unit 1 would discharge from the draft tube through a concrete channel of rectangular section directly into the Wynoochee River, and flows from unit 2 would discharge from the draft tube into a box-shaped structure discharging into the Wynoochee River until the Corps of Engineers' fish hatchery is constructed, then flows would discharge directly into the hatchery; (f) a switchyard; (g) 4.16-kV generator leads; (h) a 416/34.5-kV, 10/13.3-MVA transformer; (i) a 20-mile-long, 34.5-kV transmission line connecting to an existing Grays Harbor PUD line along highway 101, which feeds the Promised Land Substation; (j) a parking area on the northwest side of the powerhouse; and (k) an access road on the east bank and a bridge to the powerhouse.

The project works generally described above are more specifically shown and described by those portions of Exhibits A and F recommended for approval in the attached Safety and Design Assessment.

(3) All of the structures, fixtures, equipment, or facilities used to operate or maintain the project and located within the project boundary, all portable property that may be employed in connection with the project and located within or outside the project boundary, and all riparian or other rights that are necessary or appropriate in the operation or maintenance of the project.

(C) The Exhibit G described above and those sections of Exhibits A and F recommended for approval in the attached Safety and Design Assessment are approved and made part of the license.

(D) This license is subject to the following articles submitted by the United States Department of Agriculture, Forest Service, and the United States Department of the Army, Corps of Engineers under section 4(e) of the Act:

Article 101. Within 6 months following the date of issuance of this license and before starting any activities of a land-disturbing nature, the licensee shall file with the Director, Office of Hydropower Licensing, a special-use authorization approved and enforceable by the Forest Service.

The licensee may not commence activities authorized in the license and Forest Service special-use authorizations until after 60 days following the filing date, unless the Director, Office of Hydropower Licensing instructs otherwise.

Article 102. Each year on or before the anniversary date of the license, the licensee shall consult with the Forest Service with regard to measures needed to ensure protection and development of the natural resource values of the project area. Within 2 months following said meeting, the licensee shall file a report with the Commission of any recommendations made by the agency. The Commission reserves the right, after notice and opportunity for hearing, to require changes in the project and its operation which may be necessary to accomplish natural resource protection and development.

Article 103. Within 1 year following the date of issuance of this license and before starting any activities of a land-disturbing nature, the licensee shall file with the Director, Office of Hydropower Licensing, a plan approved by the Forest Service for the control of erosion, stream sedimentation, dust, and soil mass movement.

The licensee may not commence activities affected by the plan until after 60 days following the filing date, unless the Director, Office of Hydropower Licensing instructs otherwise.

Article 104. Within 1 year following the date of issuance of this license and before starting any activities of a land-disturbing nature, the licensee after consultation with the Forest Service shall file a plan, approved by the Forest Service, for the treatment and disposal of solid waste and waste water generated during construction and operation of the project with the Director, Office of Hydropower Licensing and the Commission's Regional Director in Portland, Oregon, or their authorized representative. The plan shall address, at a minimum, the estimated quantity of solid waste and waste water generated each day, the location of disposal sites and methods of treatment, implementation schedule, areas available for disposal of wastes, design of facilities, comparisons between on-and off-site disposal, and maintenance programs.

The licensee may not commence activities affected by the plan until after 60 days following the filing date, unless the Director, Office of Hydropower Licensing, instructs otherwise.

Article 105. Within 1 year following the date of issuance of this license, and at least 60 days before starting any activities of a land-disturbing nature, the licensee shall file with the Director, Office of Hydropower Licensing, a plan approved by the Forest Service for oil and hazardous substances storage and spill prevention and cleanup.

The plan shall require, at a minimum, the licensee to maintain in the project area a cache of spill cleanup equipment suitable to contain any spill from the project; periodically inform the Forest Service of the location of the spill cleanup equipment on National Forest System lands, and of the location, type, and quantity of oil and hazardous substances stored in the project area; and to inform the Forest Service immediately of the nature, time, date, location, and action taken for any spill.

The licensee may not commence activities affected by the plan until after 60 days following the filing date, unless the Director, Office of Hydropower Licensing, instructs otherwise.

Article 106. Within 1 year following the date of issuance of this license and before starting any activities of a land-disturbing nature, the licensee shall file with the Director, Office of Hydropower Licensing, a plan approved by the Forest Service for the storage and/or disposal of excess construction/tunnel spoils and slide material. At a minimum, the plan shall address contouring of any storage piles to conform to adjacent landforms and slopes, stabilization and rehabilitation of all spoil sites and borrow pits, and also prevention of water contamination by leachate and runoff. The plan also shall include an implementation schedule and maintenance program.



The licensee may not commence activities affected by the plan until after 60 days following the filing date, unless the Director, Office of Hydropower Licensing, instructs otherwise.

Article 107. Within 1 year following the date of issuance of this license and before starting any activities of a land-disturbing nature relative to the construction of the proposed project features or facilities, the licensee shall file with the Director, Office of Hydropower Licensing, a plan approved by the Forest Service for the design and construction of the project facilities in order to preserve or enhance its visual character. The plan shall consider facility configurations and alignments, building materials, color, conservation of vegetation, landscaping, and screening. Project facilities include, among other things, the diversion structure, penstock, powerhouse, transmission lines and corridor, and all access roads.

The licensee may not commence activities affected by the plan until after 60 days following the filing date, unless the Director, Office of Hydropower Licensing, instructs otherwise.

Article 108. Licensee shall, prior to changes in the location of any existing or proposed project features or facilities, or any changes in the proposed uses of project lands and waters, or divergence from any approved exhibits filed with the Commission, consult and cooperate with the Forest Service in regard to measures needed to ensure the protection and development of the natural resource values of the project area that could be affected by such changes or divergence. Within 60 days following any consultations and prior to any such changes or divergence, the licensee shall file a report with the Commission describing the changes, the reasons for the changes, and showing the approval of the Forest Service. This article does not relieve the licensee from the requirements of article 3 of this license. In the event that Forest Service approval of the changes cannot be secured, the proposed changes or modifications shall be considered to be a substantial alteration and must be submitted to the Commission for approval in accordance with article 2.

Article 109. Licensee shall not use pesticides on National Forest System lands for any purpose without the prior written approval of the Forest Service. Each year on or about the anniversary date of the license, the licensee shall file a pesticide and herbicide use plan approved by the Forest Service with the Director, Office of Hydropower Licensing. Exceptions to this schedule may be allowed only when unexpected outbreaks of pests require control measures that were not anticipated at the time the annual report was submitted. At that time the Forest Service may grant an emergency approval. The licensee shall, within 1 month, file a copy of this approval with the Director, Office of Hydropower Licensing. Only those materials registered by the U.S. Environmental Protection Agency for the specific

purpose planned will be considered for use on National Forest System lands. Label instructions will be strictly followed in the preparation and application of pesticides and disposal of excess materials and containers.

Article 110. Within 2 months following written notice by the Forest Service, the licensee shall at the licensee's expense, remove the aerial transmission lines to allow timber harvesting by cable logging methods. The transmission lines may be reinstalled after notice by the Forest Service that the logging has been completed.

Article 111. The licensee shall operate the project to provide flow releases and water temperature regulation as directed by the Corps of Engineers. Within 90 days from the issuance date of the license, the licensee shall provide a schedule to the Corps for providing design documentation acceptable to the Corps for flow releases and outflow water temperature regulation by the hydropower project. In the event that the licensee is unable to operate the project for flow releases and water temperature regulation as directed by the Corps, the licensee will cease operation and reservoir releases will be made by the Corps through the existing project outlets.

Article 112. The licensee shall operate the project for fish passage as directed by the Corps of Engineers in cooperation with State of Washington and federal fish agencies. Within 90 days from the issuance date of the license, the licensee shall provide a schedule to the Corps and state and federal fish agencies for providing design documentation acceptable to the Corps and state and federal fish agencies for fish passage through the hydropower project. In the event that the licensee is unable to operate the project for fish passage as directed by the Corps in cooperation with the state and federal fish agencies, the licensee will cease operation and fish passage will be made by the Corps through the existing project outlets.

(E) This license is subject to the articles set forth in Form L-2, (October 1975), entitled "Terms and Conditions of License for Unconstructed Major Project Affecting Lands of the United States," except Article 20. The license is also subject to the following additional articles:

Article 201. The licensee shall pay the United States the following annual charge, effective the first day of the month in which this license is issued:

- a. For the purpose of reimbursing the United States for the cost of administration of Part I of the Act, a reasonable amount as determined in accordance with the provisions of the Commission's regulations in effect from time to time. The authorized installed capacity for that purpose is 14,400 horsepower.

- b. For the purpose of recompensing the United States for the use, occupancy, and enjoyment of 6.9 acres of its lands for transmission line right-of-way, a reasonable amount as determined in accordance with the provisions of the Commission's regulations in effect from time to time.
- c. For the purpose of recompensing the United States for utilization of surplus water or water power from a government dam, a reasonable amount as determined in accordance with the provisions of the Commission's regulations in effect from time to time.

Article 202. The licensee shall clear and keep clear to an adequate width all lands along open conduits and shall dispose of all temporary structures, unused timber, brush, refuse, or other material unnecessary for the purposes of the project which result from maintenance, operation, or alteration of the project works. All clearing of lands and disposal of unnecessary material shall be done with due diligence to the satisfaction of the authorized representative of the Commission and in accordance with appropriate federal, state, and local statutes and regulations.

Article 301. The licensee shall commence construction of project works within two years from the issuance date of the license and shall complete construction of the project within four years from the issuance date of the license.

Article 302. The licensee shall, at least 60 days prior to start of construction, submit one copy to the Director, Division of Inspections, of the final contract drawings and specifications for pertinent features of the project, such as water retention structures, powerhouse, and water conveyance structures. The Director, Division of Inspections, may require changes in the plans and specifications to assure a safe and adequate project.

Article 303. The licensee shall within 90 days of completion of construction file for approval by the Commission revised Exhibits A, F, and G to describe and show the project as built. The project shall include the east bank access road and bridge.

Article 304. The design and construction of those permanent and temporary facilities, including reservoir impounding cofferdams and deep excavations, that would be an integral part of, or that could affect the structural integrity or operation of the Government project shall be done in consultation with and subject to the review and approval of the Corps' District Engineer. Within 90 days from the issuance date of the license, the licensee shall furnish the Corps and the Commission's Regional Director for their information, a schedule for submission of design documents and plans and specifications for the project. If the schedule does not afford sufficient review and approval time, the licensee, upon request of the Corps, shall meet with the Corps and the FERC staffs to revise the schedule accordingly.

Article 305. The licensee shall review and approve the design of contractor-designed cofferdams and deep excavations other than those approved according to article 301 prior to the start of construction and shall ensure that construction of cofferdams and deep excavations are consistent with the approved design. At least 30 days prior to start of construction of the cofferdam, the licensee shall submit to the Commission's Regional Director and the Director, Division of Inspections and the Corps of Engineers one copy each of the approved cofferdam construction drawings and specifications and letter(s) of approval.

Article 306. The licensee shall within 90 days from the issuance date of the license, enter into an agreement with the Corps of Engineers to coordinate its plans for access to and site activities on lands and property administered by the Corps so that the authorized purposes, including operation of the federal facilities, are protected. In general, the agreement shall not be redundant with the Commission's requirements contained in this license, and shall identify the facility, the study and construction activities, as applicable, and terms and conditions under which studies and construction will be conducted. The agreement shall be mainly composed of the following items: (1) reasonable arrangements for access to the Corps site to conduct studies and construction activities, such access rights to be conditioned by the Corps as may be necessary to protect the federally authorized project purposes and operations; (2) charges to be paid by licensee to the Corps (a) for technical studies by the Corps that relate solely to the structural integrity or operation of the Corps facility associated with power plant development, (b) for review of design including plans and specifications, and for construction inspections based on personnel costs, where such review and inspections are directly related to the structural integrity or operation of the Corps project, and (c) for construction costs that may be incurred by the Corps for the specific and sole purpose of accommodating the installation of power facilities at the existing Corps project; and (3) charges to be paid by licensee to the Corps for copies of reports, drawings and similar data based on printing and mailing costs, provided that charges shall not be assessed for information, services, or relationships that would normally be provided to the public. Should licensee and the Corps fail to reach an access agreement, the licensee shall refer the matter to the Commission for resolution.

Article 307. The construction, operation and maintenance of the project works that, in the judgment of the Corps of Engineers may affect the structural integrity or operation of the Corps project shall be subject to periodic or continuous inspections by the Corps. Any construction, operation and maintenance deficiencies or difficulties detected by the Corps inspection shall be immediately reported to the Regional Director. Upon review, the Regional Director shall refer the matter to the licensee for appropriate

action. In cases when construction, operation or maintenance practices or deficiencies may create a situation posing imminent danger to the structural integrity and safety of the Corps project, the Corps inspector has the authority to stop construction or maintenance while awaiting the resolution of the problem.

Article 308. The licensee shall, at least 60 days prior to start of construction, submit for approval a regulating plan to the U.S. Army Corps of Engineers, describing (a) the designed mode of hydropower operation, and (b) reservoir flow diversion and regulation requirements for operation of the Corps project during construction as established by the Corps. In addition, the licensee, prior to start of power plant operation, shall enter into an operating Memorandum of Agreement (MOA) with the Corps describing the detailed operation of the powerhouse acceptable to the Corps. The MOA shall specify any restrictions needed to protect the primary purposes of the Corps project for navigation, recreation, water quality, and flood control. The Regional Director shall be invited to attend meetings regarding the agreement. The MOA shall be subject to revision by mutual consent of the Corps and licensee as experience is gained by actual project operation. Should the licensee and the Corps fail to reach an agreement, the matter will be referred to the Director, Office of Hydropower Licensing for resolution. Copies of the regulating plan and signed MOA between the Corps and the licensee and any revision thereof shall be furnished to the Director, Office of Hydropower Licensing and the Regional Director.

Article 309. The licensee shall have no claim under this license against the United States arising from the effect of any changes made in the operation or reservoir levels of the Corps of Engineers' project.

Article 310. The licensee shall provide the Regional Director two copies of all correspondence between the licensee and the U.S. Army Corps of Engineers. The Regional Director shall not authorize construction of any project work until the Corps of Engineers' written approval of construction plans and specifications has been received by the Regional Director.

Article 401. The licensee, after consulting the Department of the Army, Seattle District Corps of Engineers; the U.S. Fish and Wildlife Service; the National Marine Fisheries Service; and the Forest Service, Olympic National Forest, and before starting any land-clearing or ground-disturbing activities, shall file with the Commission a plan to control erosion, turbidity, sedimentation, and slope instability. The plan shall include functional design drawings and topographic map locations of control measures, a construction schedule, monitoring and maintenance programs for project construction and operation, and provisions for periodic review of the plan and for making any necessary revisions to the plan. The licensee shall include in the filing documentation of agency consultation on the plan and copies of any agency comments or recommendations.

In the event the licensee does not concur with any agency comments or recommendations, the licensee shall provide a discussion of the reasons for not concurring based on actual site geological, soil, and groundwater conditions. The Commission reserves the right to require changes to the plan. Unless the Director, Office of Hydropower Licensing, directs otherwise, the licensee may commence any land-clearing or ground-disturbing activities at the project 90 days after filing this plan.

Article 402. The licensee, after consulting the U.S. Fish and Wildlife Service, the National Marine Fisheries Service, the Washington Department of Ecology, the Washington Department of Fisheries, the Washington Department of Wildlife, and the Department of the Army, Seattle District Corps of Engineers, shall conduct a temperature computer model study to demonstrate the ability of the proposed intake structure to meet the Corps' water temperature regulation objectives. The results of the study, along with comments from the above agencies on the results of the study, shall be submitted to the Commission within 6 months of issuance of the license, and prior to beginning construction of the intake structure.

If the results of the study fail to demonstrate that the proposed intake structure will meet water temperature regulation objectives, the licensee shall submit, for Commission approval, proposed modifications of project design or operation to meet the water temperature objectives. Agency comments on the proposed modifications shall be included in the filing.

Unless the Director, Office of Hydropower Licensing, directs otherwise, the licensee may commence construction of the intake structure at the project 90 days after filing the results of the study.

Article 403. The licensee shall operate the project to provide flow releases and water temperature regulation as directed by the Department of the Army, Seattle District Corps of Engineers (Corps). In the event that the licensee is unable to operate the project to maintain flow releases and water temperature regulation as directed by the Corps, the licensee will cease operation, notify the Portland Regional Office, and consult with the Corps to determine the appropriate conditions and schedule for resuming operation.

Article 404. The licensee, after consulting the Washington Department of Ecology, the U.S. Fish and Wildlife Service, and the Department of the Army, Seattle District Corps of Engineers, shall develop and implement a mutually satisfactory water quality study plan to assess the impact of project operation on the water quality of the Wynoochee River. Within 1 year from the date of issuance of this license, the licensee shall file a description

of the study plan, and a schedule for conducting the study and filing the final report with the Director, Office of Hydropower Licensing, along with comments from the above named agencies on the adequacy of the study plan. The Director may require modification to the plan.

The results of the study shall be submitted to the Commission. Further, if the results of the study indicate that changes in project structures or operations are necessary to maintain the State of Washington's water quality standards, the licensee shall also file, for Commission approval, a schedule for implementing the specific changes in project structures or operations. At the same time, copies of the schedule shall be served upon the agencies consulted.

Article 405. The licensee, after consulting the U.S. Fish and Wildlife Service, the National Marine Fisheries Service, the Washington Department of Fisheries, and the Washington Department of Wildlife, shall file for Commission approval, within 6 months from the date of issuance of this license, a construction schedule designed to minimize impacts of construction activities on migrating salmonids. The schedule shall include a provision to restrict instream and streamside construction to the period from July 1 to October 30. Documentation of agency consultation on the construction schedule shall be included in the filing. The Commission reserves the right to require modifications to the plan and schedule.

Article 406. The licensee shall not operate the project's hydroelectric turbines during the period from April 15 through June 30, yearly; all outflows from Wynoochee Dam shall bypass the hydroelectric turbines through the existing outlet gates to provide for passage of outmigrating coho salmon and steelhead smolts. This operation schedule may be temporarily modified if required by operating emergencies beyond the control of the licensee, and for short periods upon mutual agreement among the licensee and the Department of the Army, Seattle District Corps of Engineers, the Washington Department of Wildlife, the Washington Department of Fisheries, the U.S. Fish and Wildlife Service, and the National Marine Fisheries Service.

Article 407. The licensee, after consulting the Washington Department of Wildlife, the Washington Department of Fisheries, the U.S. Fish and Wildlife Service, and the National Marine Fisheries Service, shall develop a plan to monitor the outmigration of coho salmon and steelhead smolts past the Wynoochee Dam. Within 1 year from the date of issuance of this license, the licensee shall file, for Commission approval, a copy of the monitoring plan, along with any comments from the above named agencies on the plan, and a schedule for filing the results of the monitoring program. The Commission reserves the right to require modifications to the plan and the schedule.

*Monitor  
outmigration*

The results of the monitoring shall be submitted to the Commission according to the approved schedule, with the comments from the consulted agencies relating to the results. If the results of the monitoring indicate that measures are necessary to minimize adverse effects to fish resources, the licensee also shall provide, for Commission approval, a schedule for implementing the measures, along with any comments from the above named agencies on the recommended measures. At the same time, copies of the schedule shall be served upon the agencies consulted.

Article 408. The licensee after consulting the Washington Department of Wildlife, the Washington Department of Fisheries, the National Marine Fisheries Service, the U.S. Fish and Wildlife Service, and the Department of the Army, Seattle District Corps of Engineers to set limits on the maximum rate of change in river flow (ramping rate) downstream from the project for the protection of fish and wildlife resources. At least 6 months prior to the commencement of project operation, the licensee shall file, for Commission approval, recommendations for ramping rates. The filing shall include comments from the consulted agencies on the ramping rates.

Article 409. The licensee, after consulting the U.S. Fish and Wildlife Service, the Forest Service, and the Washington Department of Wildlife, shall file for Commission approval, within 1 year from the date of issuance of this license, a plan to mitigate in kind for the loss of riparian and aquatic habitat value resulting from project construction and operation. The plan shall include, but shall not be limited to: (a) identification of the type of habitat to be used for replacement; (b) a determination of the location and the number of acres of habitat to be used for replacement; (c) a discussion of the specific construction and maintenance techniques to be used for mitigating project effects; (d) a schedule of implementation; and (e) a monitoring program to determine the effectiveness of the mitigative measures. Documentation of agency consultation on the mitigative plan shall be included in the filing.

Article 410. The licensee, after consulting the U.S. Fish and Wildlife Service, the Forest Service, and the Washington Department of Wildlife, shall file for Commission approval, within 1 year from the date of issuance of this license, a plan for the clearance, revegetation, and maintenance of the project transmission line right-of-way for the benefit of wildlife resources. The plan shall include, but shall not be limited to: (a) identification of the location and number of acres of each type of the habitat that will be maintained within the right-of-way; (b) a discussion of the specific construction and maintenance techniques to be used for the right-of-way; (c) a schedule of implementation; and (d) a monitoring program to determine the effectiveness of managing the project transmission line right-of-way for the benefit of wildlife. Documentation of agency consultation on the plan shall be included in the filing.



Article 411. The licensee, after consulting the U.S. Fish and Wildlife Service, the Forest Service, Olympic National Forest, and the Washington Department of Wildlife, and within 1 year from the date of issuance of this license, shall file, for Commission approval, a transmission line design plan. The plan shall generally conform to the transmission line design plan described in the Biological Assessment of Bald Eagles (pages 38 to 41), filed April 1, 1987, as a supplement to the Exhibit E (Environmental Report) of the application for license. The plan shall include provisions to avoid crossing anadromous fish streams used by eagles for feeding and provisions for conduit crossings at the existing bridges on Big Creek, the East and West Forks of Humptulips River, and the East Fork of Stevens Creek. The plan shall include provisions to bury the transmission line where it passes through any areas of old growth trees used as perch sites or roost sites by bald eagles.

Plans for the above-ground portions of the transmission line shall be prepared in accordance with the guidelines set forth in the publication, Suggested Practices for Raptor Protection on Power Lines, Raptor Research Report no. 4, issued by the Raptor Research Foundation, Inc., in 1981. The plan shall include: (a) detailed design drawings of the transmission line, clearly showing phase spacing, configuration, grounding practices, and measures to prevent avian collisions; (b) a construction schedule; and (c) agency comments on the adequacy of the design plan. The licensee shall not conduct any transmission line construction until the plan is approved by the Commission.

Article 412. The licensee, within one year after the issuance of this license and after consulting the U.S. Fish and Wildlife Service (FWS), shall conduct a winter bald eagle survey in the vicinity of the powerhouse site to determine the extent and timing of bald eagle activity in this area. If bald eagle use of the site is documented, the licensee shall halt project construction activities in the Wynoochee Dam project vicinity during the dates of significant bald eagle use to avoid disturbing wintering bald eagles. The results of the survey shall be submitted to the Commission for approval prior to any ground disturbing activity. The comments of the FWS shall be included with the filing. If the results of the survey are inconclusive, the licensee shall halt project construction activities in the vicinity of the Wynoochee Dam from January 15 to March 1, to ensure that any wintering bald eagles in the project vicinity are not disturbed.

Article 413. The licensee shall implement the east bank access road alternative to the powerhouse site, as described in the Supplement to the Exhibit A (Project Description) of the Application for License, filed July 1, 1987. After consultation with the U.S. Fish and Wildlife Service, the National Marine Fisheries Service, the Corps of Engineers, the Forest Service, the Washington Department of Wildlife, and the Washington Department

of Fisheries, and at least 90 days prior to the start of construction, the licensee shall file with the Commission conceptual design drawings of the temporary construction bridge across the Wynoochee River to the powerhouse site, and of the permanent powerhouse access bridge. The filing shall also include functional design drawings of any access restrictions or other facilities to protect public safety at the bridge. The licensee shall include in the filing documentation of consultation with the above named resource agencies and copies of any agency comments or recommendations. The Commission reserves the right to require modification to the design drawings.

Article 414. The licensee, during the construction of the powerhouse and access bridge, shall minimize the removal of old growth or snag trees, which may be used as perch sites by bald eagles. If construction of the powerhouse and access bridge requires the removal of more than approximately six such trees, the licensee shall: (1) halt construction, (2) consult with the U.S. Fish and Wildlife Service (FWS) to develop a mitigation plan to minimize potential impacts to bald eagles; (3) submit any mitigation plan developed for Commission approval prior to implementation, and (4) include correspondence from the FWS in any such filing. The Commission reserves the right to require changes to any plan submitted.

Article 415. The licensee, before starting any ground-disturbing or land-clearing activities within the project boundaries, other than those specifically authorized in this license, shall consult with Washington State Historic Preservation Officer (SHPO) and the Forest Service, Olympic National Forest (FS) about the need for a cultural resources survey and salvage work. The licensee shall file with the Commission documentation of the nature and extent of consultation, including a cultural resources management plan and a schedule to conduct the necessary investigation, together with a copy of a letter from the SHPO and the FS commenting on the plan and schedule, 60 days before starting any such ground disturbing or land-clearing activities. The licensee shall make funds available in a reasonable amount for the required work. If the licensee discovers any previously unidentified archeological or historic sites during the course of constructing or developing project works or other facilities at the project, the licensee shall stop all construction and development activities in the vicinity of the sites and shall consult a qualified cultural resources specialist, the SHPO, and the FS concerning the eligibility of the sites for listing in the National Register of Historic Places and any measures needed to avoid the sites or to mitigate effects on the sites. Prior to excavating or removing any archeological resources located on National Forest System lands, the licensee shall secure a permit from the FS authorizing such excavation or removal. If the licensee, the SHPO, and the FS cannot agree on the amount of money to be spent for project specific archeological and historical purposes, the Commission reserves the right to require the licensee to conduct the necessary work at the licensee's own expense.

Article 416. (a) In accordance with the provisions of this article, the licensee shall have the authority to grant permission or certain types of use and occupancy of project lands and waters and to convey certain interests in project lands and waters for certain other types of use and occupancy, without prior Commission approval. The licensee may exercise the authority only if the proposed use and occupancy is consistent with the purposes of protecting and enhancing the scenic, recreational, and other environmental values of the project. For those purposes, the licensee shall also have continuing responsibility to supervise and control the uses and occupancies for which it grants permission, and to monitor the use of, and ensure compliance with the covenants of the instrument of conveyance for, any interests that it has conveyed, under this article. If a permitted use and occupancy violates any condition of this article or any other condition imposed by the licensee for protection and enhancement of the project's scenic, recreational, or other environmental values, or if a covenant of a conveyance made under the authority of this article is violated, the licensee shall take any lawful action necessary to correct the violation. For a permitted use or occupancy, that action includes, if necessary, cancelling the permission to use and occupy the project lands and waters and requiring the removal of any non-complying structures and facilities.

(b) The types of use and occupancy of project lands and waters for which the licensee may grant permission without prior Commission approval are: (1) landscape plantings; (2) non-commercial piers, landings, boat docks, or similar structures and facilities that can accommodate no more than 10 watercraft at a time and where said facility is intended to serve single-family type dwellings; and (3) embankments, bulkheads, retaining walls, or similar structures for erosion control to protect the existing shoreline. To the extent feasible and desirable to protect and enhance the project's scenic, recreational, and other environmental values, the licensee shall require multiple use and occupancy of facilities for access to project lands or waters. The licensee shall also ensure, to the satisfaction of the Commission's authorized representative, that the uses and occupancies for which it grants permission are maintained in good repair and comply with applicable state and local health and safety requirements. Before granting permission for construction of bulkheads or retaining walls, the licensee shall: (1) inspect the site of the proposed construction, (2) consider whether the planting of vegetation or the use of riprap would be adequate to control erosion at the site, and (3) determine that the proposed construction is needed and would not change the basic contour of the reservoir shoreline. To implement this paragraph (b), the licensee may, among other things, establish a program for issuing permits for the specified types of use and occupancy of project lands and waters, which may be subject to the payment of a reasonable fee to cover the licensee's costs of administering the permit program. The Commission reserves the right to require the licensee to file a description of its standards,

guidelines, and procedures for implementing this paragraph (b) and to require modification of those standards, guidelines, or procedures.

(c) The licensee may convey easements or rights-of-way across, or leases of, project lands for: (1) replacement, expansion, realignment, or maintenance of bridges and roads for which all necessary state and federal approvals have been obtained; (2) storm drains and water mains; (3) sewers that do not discharge into project waters; (4) minor access roads; (5) telephone, gas, and electric utility distribution lines; (6) non-project overhead electric transmission lines that do not require erection of support structures within the project boundary; (7) submarine, overhead, or underground major telephone distribution cables or major electric distribution lines (69-kV or less); and (8) water intake or pumping facilities that do not extract more than one million gallons per day from a project reservoir. No later than January 31 of each year, the licensee shall file three copies of a report briefly describing for each conveyance made under this paragraph (c) during the prior calendar year, the type of interest conveyed, the location of the lands subject to the conveyance, and the nature of the use for which the interest was conveyed.

(d) The licensee may convey fee title to, easements or rights-of-way across, or leases of project lands for: (1) construction of new bridges or roads for which all necessary state and federal approvals have been obtained; (2) sewer or effluent lines that discharge into project waters, for which all necessary federal and state water quality certificates or permits have been obtained; (3) other pipelines that cross project lands or waters but do not discharge into project waters; (4) non-project overhead electric transmission lines that require erection of support structures within the project boundary, for which all necessary federal and state approvals have been obtained; (5) private or public marinas that can accommodate no more than 10 watercraft at a time and are located at least one-half mile from any other private or public marina; (6) recreational development consistent with an approved Exhibit R or approved report on recreational resources of an Exhibit E; and (7) other uses, if: (i) the amount of land conveyed for a particular use is five acres or less; (ii) all of the land conveyed is located at least 75 feet, measured horizontally, from the edge of the project reservoir at normal maximum surface elevation; and (iii) no more than 50 total acres of project lands for each project development are conveyed under this clause (d)(7) in any calendar year. At least 45 days before conveying any interest in project lands under this paragraph (d), the licensee must submit a letter to the Director, Office of Hydropower Licensing, stating its intent to convey the interest and briefly describing the type of interest and location of the lands to be conveyed (a marked Exhibit G or K map may be used), the nature of the proposed use, the identity of any federal or state agency official consulted, and any federal or state approvals required for the proposed use. Unless the Director,

within 45 days from the filing date, requires the licensee to file an application for prior approval, the licensee may convey the intended interest at the end of that period.

(e) The following additional conditions apply to any intended conveyance under paragraph (c) or (d) of this article:

(1) Before conveying the interest, the licensee shall consult with federal and state fish and wildlife or recreation agencies, as appropriate, and the State Historic Preservation Officer.

(2) Before conveying the interest, the licensee shall determine that the proposed use of the lands to be conveyed is not inconsistent with any approved Exhibit R or approved report on recreational resources of an Exhibit E; or, if the project does not have an approved Exhibit R or approved report on recreational resources, that the lands to be conveyed do not have recreational value.

(3) The instrument of conveyance must include covenants running with the land adequate to ensure that: (i) the use of the lands conveyed shall not endanger health, create a nuisance, or otherwise be incompatible with overall project recreational use; and (ii) the grantee shall take all reasonable precautions to ensure that the construction, operation, and maintenance of structures or facilities on the conveyed lands will occur in a manner that will protect the scenic, recreational, and environmental values of the project.

(4) The Commission reserves the right to require the licensee to take reasonable remedial action to correct any violation of the terms and conditions of this article, for the protection and enhancement of the project's scenic, recreational, and other environmental values.

(f) The conveyance of an interest in project lands under this article does not in itself change the project boundaries. The project boundaries may be changed to exclude land conveyed under this article only upon approval of revised Exhibit G or K drawings (project boundary maps) reflecting exclusion of that land. Lands conveyed under this article will be excluded from the project only upon a determination that the lands are not necessary for project purposes, such as operation and maintenance, flowage, recreation, public access, protection of environmental resources, and shoreline control, including shoreline aesthetic values. Absent extraordinary circumstances, proposals to exclude lands conveyed under this article from the project shall be consolidated for consideration when revised Exhibit G or K drawings would be filed for approval for other purposes.

(g) The authority granted to the licensee under this article shall not apply to any part of the public lands and reservations of the United States included within the project boundary.

(F) The licensee shall serve copies of any Commission filing required by this order on any entity specified in this order to be consulted on matters related to that filing. Proof of service on these entities must accompany the filing with the Commission.

(G) This order is issued under authority delegated to the Director and is final unless appealed under Rule 1902 to the Commission by any party within 30 days from the issuance date of this order. Filing an appeal does not stay the effective date of this order or any date specified in this order. The licensee's failure to appeal this order shall constitute acceptance of the license.

A handwritten signature in dark ink, appearing to read "Fred Springer", with a long, sweeping horizontal flourish extending to the right.

Fred E. Springer  
Acting Director, Office  
of Hydropower Licensing

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tion as may be directed by the Secretary of the Department in which the Coast Guard is operating.

*Article 26.* If the Licensee shall cause or suffer essential project property to be removed or destroyed or to become unfit for use, without adequate replacement, or shall abandon or discontinue good faith operation of the project or refuse or neglect to comply with the terms of the license and the lawful orders of the Commission mailed to the record address of the Licensee or its agent, the Commission will deem it to be the intent of the Licensee to surrender the license. The Commission, after notice and opportunity for hearing, may require the Licensee to remove any or all structures, equipment and power lines within the project boundary and to take any such other action necessary to restore the project waters, lands, and facilities remaining within the project boundary to a condition satisfactory to the United States agency having jurisdiction over its lands or the Commission's authorized representative, as appropriate, or to provide for the continued operation and maintenance of nonpower facilities and fulfill such other obligations under the license as the Commission may prescribe. In addition, the Commission in its discretion, after notice and opportunity for hearing, may also agree to the surrender of the license when the Commission, for the reasons recited herein, deems it to be the intent of the Licensee to surrender the license.

*Article 27.* The right of the Licensee and of its successors and assigns to use or occupy waters over which the United States has jurisdiction, or lands of the United States under the license, for the purpose of maintaining the project works or otherwise, shall absolutely cease at the end of the license period, unless the Licensee has obtained a new license pursuant to the then existing laws and regulations, or an annual license under the terms and conditions of this license.

*Article 28.* The terms and conditions expressly set forth in the license shall not be construed as impairing any terms and conditions of the Federal Power Act which are not expressly set forth herein.

FORM L-5 (REVISED OCTOBER, 1975)

FEDERAL POWER COMMISSION

TERMS AND CONDITIONS OF LICENSE FOR CONSTRUCTED MAJOR PROJECT AFFECTING  
NAVIGABLE WATERS AND LANDS OF THE UNITED STATES

*Article 1.* The entire project, as described in this order of the Commission, shall be subject to all of the provisions, terms, and conditions of the license.

*Article 2.* No substantial change shall be made in the maps, plans, specifications, and statements described and designated as exhibits and approved by the Commission in its order as a part of the license until

such change shall have been approved by the Commission: *Provided, however,* That if the Licensee or the Commission deems it necessary or desirable that said approved exhibits, or any of them, be changed, there shall be submitted to the Commission for approval a revised, or additional exhibit or exhibits covering the proposed changes which, upon approval by the Commission, shall become a part of the license and shall supersede, in whole or in part, such exhibit or exhibits theretofore made a part of the license as may be specified by the Commission.

*Article 3.* The project area and project works shall be in substantial conformity with the approved exhibits referred to in Article 2 herein or as changed in accordance with the provisions of said article. Except when emergency shall require for the protection of navigation, life, health, or property, there shall not be made without prior approval of the Commission any substantial alteration or addition not in conformity with the approved plans to any dam or other project works under the license or any substantial use of project lands and waters not authorized herein; and any emergency alteration, addition, or use so made shall thereafter be subject to such modification and change as the Commission may direct. Minor changes in project works, or in uses of project lands and waters, or divergence from such approved exhibits may be made if such changes will not result in a decrease in efficiency, in a material increase in cost, in an adverse environmental impact, or in impairment of the general scheme of development; but any of such minor changes made without the prior approval of the Commission, which in its judgment have produced or will produce any of such results, shall be subject to such alteration as the Commission may direct.

*Article 4.* The project, including its operation and maintenance and any work incidental to additions or alterations authorized by the Commission, whether or not conducted upon lands of the United States, shall be subject to the inspection and supervision of the Regional Engineer, Federal Power Commission, in the region wherein the project is located, or of such other officer or agent as the Commission may designate, who shall be the authorized representative of the Commission for such purposes. The Licensee shall cooperate fully with said representative and shall furnish him such information as he may require concerning the operation and maintenance of the project, and any such alterations thereto, and shall notify him of the date upon which work with respect to any alteration will begin, as far in advance thereof as said representative may reasonably specify, and shall notify him promptly in writing of any suspension of work for a period of more than one week, and of its resumption and completion. The Licensee shall submit to said representative a detailed program of inspection by the Licensee that will provide for an adequate and qualified inspection force for construction of any such alterations to the project. Construction of said alterations or

any feature thereof shall not be initiated until the program of inspection for the alterations or any feature thereof has been approved by said representative. The Licensee shall allow said representative and other officers or employees of the United States, showing proper credentials, free and unrestricted access to, through, and across the project lands and project works in the performance of their official duties. The Licensee shall comply with such rules and regulations of general or special applicability as the Commission may prescribe from time to time for the protection of life, health, or property.

*Article 5.* The Licensee, within five years from the date of issuance of the license, shall acquire title in fee or the right to use in perpetuity all lands, other than lands of the United States, necessary or appropriate for the construction, maintenance, and operation of the project. The Licensee or its successors and assigns shall, during the period of the license, retain the possession of all project property covered by the license as issued or as later amended, including the project area, the project works, and all franchises, easements, water rights, and rights of occupancy and use; and none of such properties shall be voluntarily sold, leased, transferred, abandoned, or otherwise disposed of without the prior written approval of the Commission, except that the Licensee may lease or otherwise dispose of interests in project lands or property without specific written approval of the Commission pursuant to the then current regulations of the Commission. The provisions of this article are not intended to prevent the abandonment or the retirement from service of structures, equipment, or other project works in connection with replacements thereof when they become obsolete, inadequate, or inefficient for further service due to wear and tear; and mortgage or trust deeds or judicial sales made thereunder, or tax sales, shall not be deemed voluntary transfers within the meaning of this article.

*Article 6.* In the event the project is taken over by the United States upon the termination of the license as provided in Section 14 of the Federal Power Act, or is transferred to a new licensee or to a non-power licensee under the provisions of Section 15 of said Act, the Licensee, its successors and assigns shall be responsible for, and shall make good any defect of title to, or of right of occupancy and use in, any of such project property that is necessary or appropriate or valuable and serviceable in the maintenance and operation of the project, and shall pay and discharge, or shall assume responsibility for payment and discharge of, all liens or encumbrances upon the project or project property created by the Licensee or created or incurred after the issuance of the license: *Provided*, That the provisions of this article are not intended to require the Licensee, for the purpose of transferring the project to the United States or to a new licensee, to acquire any different title to, or right of

occupancy and use in, any of such project property than was necessary to acquire for its own purposes as the Licensee.

*Article 7.* The actual legitimate original cost of the project, and of any addition thereto or betterment thereof, shall be determined by the Commission in accordance with the Federal Power Act and the Commission's Rules and Regulations thereunder.

*Article 8.* The Licensee shall install and thereafter maintain gages and stream-gaging stations for the purpose of determining the stage and flow of the stream or streams on which the project is located, the amount of water held in and withdrawn from storage, and the effective head on the turbines; shall provide for the required reading of such gages and for the adequate rating of such stations; and shall install and maintain standard meters adequate for the determination of the amount of electric energy generated by the project works. The number, character, and location of gages, meters, or other measuring devices, and the method of operation thereof, shall at all times be satisfactory to the Commission or its authorized representative. The Commission reserves the right, after notice and opportunity for hearing, to require such alterations in the number, character, and location of gages, meters, or other measuring devices, and the method of operation thereof, as are necessary to secure adequate determinations. The installation of gages, the rating of said stream or streams, and the determination of the flow thereof, shall be under the supervision of, or in cooperation with, the District Engineer of the United States Geological Survey having charge of stream-gaging operations in the region of the project, and the Licensee shall advance to the United States Geological Survey the amount of funds estimated to be necessary for such supervision, or cooperation for such periods as may be mutually agreed upon. The Licensee shall keep accurate and sufficient records of the foregoing determinations to the satisfaction of the Commission, and shall make return of such records annually at such time and in such form as the Commission may prescribe.

*Article 9.* The Licensee shall, after notice and opportunity for hearing, install additional capacity or make other changes in the project as directed by the Commission, to the extent that it is economically sound and in the public interest to do so.

*Article 10.* The Licensee shall, after notice and opportunity for hearing, coordinate the operation of the project, electrically and hydraulically, with such other projects or power systems and in such manner as the Commission may direct in the interest of power and other beneficial public uses of water resources, and on such conditions concerning the equitable sharing of benefits by the Licensee as the Commission may order.



*Article 11.* Whenever the Licensee is directly benefited by the construction work of another licensee, a permittee, or the United States on a storage reservoir or other headwater improvement, the Licensee shall reimburse the owner of the headwater improvement for such part of the annual charges for interest, maintenance, and depreciation thereof as the Commission shall determine to be equitable, and shall pay to the United States the cost of making such determination as fixed by the Commission. For benefits provided by a storage reservoir or other headwater improvement of the United States, the Licensee shall pay to the Commission the amounts for which it is billed from time to time for such headwater benefits and for the cost of making the determinations pursuant to the then current regulations of the Commission under the Federal Power Act.

*Article 12.* The United States specifically retains and safeguards the right to use water in such amount, to be determined by the Secretary of the Army, as may be necessary for the purposes of navigation on the navigable waterway affected; and the operations of the Licensee, so far as they affect the use, storage and discharge from storage of waters affected by the license, shall at all times be controlled by such reasonable rules and regulations as the Secretary of the Army may prescribe in the interest of navigation, and as the Commission may prescribe for the protection of life, health, and property, and in the interest of the fullest practicable conservation and utilization of such waters for power purposes and for other beneficial public uses, including recreational purposes, and the Licensee shall release water from the project reservoir at such rate in cubic feet per second, or such volume in acre-feet per specified period of time, as the Secretary of the Army may prescribe in the interest of navigation, or as the Commission may prescribe for the other purposes hereinbefore mentioned.

*Article 13.* On the application of any person, association, corporation, Federal agency, State or municipality, the Licensee shall permit such reasonable use of its reservoir or other project properties, including works, lands and water rights, or parts thereof, as may be ordered by the Commission, after notice and opportunity for hearing, in the interests of comprehensive development of the waterway or waterways involved and the conservation and utilization of the water resources of the region for water supply or for the purposes of steam-electric, irrigation, industrial, municipal or similar uses. The Licensee shall receive reasonable compensation for use of its reservoir or other project properties or parts thereof for such purposes, to include at least full reimbursement for any damages or expenses which the joint use causes the Licensee to incur. Any such compensation shall be fixed by the Commission either by approval of an agreement between the Licensee and the party or parties benefiting or after notice and opportunity for

hearing. Applications shall contain information in sufficient detail to afford a full understanding of the proposed use, including satisfactory evidence that the applicant possesses necessary water rights pursuant to applicable State law, or a showing of cause why such evidence cannot concurrently be submitted, and a statement as to the relationship of the proposed use to any State or municipal plans or orders which may have been adopted with respect to the use of such waters.

*Article 14.* In the construction or maintenance of the project works, the Licensee shall place and maintain suitable structures and devices to reduce to a reasonable degree the liability of contact between its transmission lines and telegraph, telephone and other signal wires or power transmission lines constructed prior to its transmission lines and not owned by the Licensee, and shall also place and maintain suitable structures and devices to reduce to a reasonable degree the liability of any structures or wires falling or obstructing traffic or endangering life. None of the provisions of this article are intended to relieve the Licensee from any responsibility or requirement which may be imposed by any other lawful authority for avoiding or eliminating inductive interference.

*Article 15.* The licensee shall, for the conservation and development of fish and wildlife resources, construct, maintain, and operate, or arrange for the construction, maintenance, and operation of such reasonable facilities, and comply with such reasonable modifications of the project structures and operation, as may be ordered by the Commission upon its own motion or upon the recommendation of the Secretary of the Interior or the fish and wildlife agency or agencies of any State in which the project or a part thereof is located, after notice and opportunity for hearing.

*Article 16.* Whenever the United States shall desire, in connection with the project, to construct fish and wildlife facilities or to improve the existing fish and wildlife facilities at its own expense, the Licensee shall permit the United States or its designated agency to use, free of cost, such of the Licensee's lands and interests in lands, reservoirs, waterways and project works as may be reasonably required to complete such facilities or such improvements thereof. In addition, after notice and opportunity for hearing, the Licensee shall modify the project operation as may be reasonably prescribed by the Commission in order to permit the maintenance and operation of the fish and wildlife facilities constructed or improved by the United States under the provisions of this article. This article shall not be interpreted to place any obligation on the United States to construct or improve fish and wildlife facilities or to relieve the Licensee of any obligation under this license.

*Article 17.* The Licensee shall construct, maintain, and operate, or shall arrange for the construction, maintenance, and operation of such reasonable recreational facilities, including modifications thereto, such as access roads, wharves, launching ramps, beaches, picnic and camping areas, sanitary facilities, and utilities, giving consideration to the needs of the physically handicapped, and shall comply with such reasonable modifications of the project, as may be prescribed hereafter by the Commission during the term of this license upon its own motion or upon the recommendation of the Secretary of the Interior or other interested Federal or State agencies, after notice and opportunity for hearing.

*Article 18.* So far as is consistent with proper operation of the project, the Licensee shall allow the public free access, to a reasonable extent, to project waters and adjacent project lands owned by the Licensee for the purpose of full public utilization of such lands and waters for navigation and for outdoor recreational purposes, including fishing and hunting: *Provided*, That the Licensee may reserve from public access such portions of the project waters, adjacent lands, and project facilities as may be necessary for the protection of life, health, and property.

*Article 19.* In the construction, maintenance, or operation of the project, the Licensee shall be responsible for, and shall take reasonable measures to prevent, soil erosion on lands adjacent to streams or other waters, stream sedimentation, and any form of water or air pollution. The Commission, upon request or upon its own motion, may order the Licensee to take such measures as the Commission finds to be necessary for these purposes, after notice and opportunity for hearing.

*Article 20.* The Licensee shall clear and keep clear to an adequate width lands along open conduits and shall dispose of all temporary structures, unused timber, brush, refuse, or other material unnecessary for the purposes of the project which results from the clearing of lands or from the maintenance or alteration of the project works. In addition, all trees along the periphery of project reservoirs which may die during operations of the project shall be removed. All clearing of the lands and disposal of the unnecessary material shall be done with due diligence and to the satisfaction of the authorized representative of the Commission and in accordance with appropriate Federal, State, and local statutes and regulations.

*Article 21.* Material may be dredged or excavated from, or placed as fill in, project lands and/or waters only in the prosecution of work specifically authorized under the license; in the maintenance of the project; or after obtaining Commission approval, as appropriate. Any such material shall be removed and/or deposited in such manner as to reasonably preserve the environmental values of the project and so as not to interfere with traffic on land or water. Dredging and filling in a

navigable water of the United States shall also be done to the satisfaction of the District Engineer, Department of the Army, in charge of the locality.

*Article 22.* Whenever the United States shall desire to construct, complete, or improve navigation facilities in connection with the project, the Licensee shall convey to the United States, free of cost, such of its lands and rights-of-way and such rights of passage through its dams or other structures, and shall permit such control of its pools, as may be required to complete and maintain such navigation facilities.

*Article 23.* The operation of any navigation facilities which may be constructed as a part of, or in connection with, any dam or diversion structure constituting a part of the project works shall at all times be controlled by such reasonable rules and regulations in the interest of navigation, including control of the level of the pool caused by such dam or diversion structure, as may be made from time to time by the Secretary of the Army.

*Article 24.* The Licensee shall furnish power free of cost to the United States for the operation and maintenance of navigation facilities in the vicinity of the project at the voltage and frequency required by such facilities and at a point adjacent thereto, whether said facilities are constructed by the Licensee or by the United States.

*Article 25.* The Licensee shall construct, maintain, and operate at its own expense such lights and other signals for the protection of navigation as may be directed by the Secretary of the Department in which the Coast Guard is operating.

*Article 26.* Timber on lands of the United States cut, used, or destroyed in the construction and maintenance of the project works, or in the clearing of said lands, shall be paid for, and the resulting slash and debris disposed of, in accordance with the requirements of the agency of the United States having jurisdiction over said lands. Payment for merchantable timber shall be at current stumpage rates, and payment for young growth timber below merchantable size shall be at current damage appraisal values. However, the agency of the United States having jurisdiction may sell or dispose of the merchantable timber to others than the Licensee: *Provided*, That timber so sold or disposed of shall be cut and removed from the area prior to, or without undue interference with, clearing operations of the Licensee and in coordination with the Licensee's project construction schedules. Such sale or disposal to others shall not relieve the Licensee of responsibility for the clearing and disposal of all slash and debris from project lands.

*Article 27.* The Licensee shall do everything reasonably within its power, and shall require its employees, contractors, and employees of contractors to do everything reasonably within their power, both independently and upon the request of officers of the agency concerned,

to prevent, to make advance preparations for suppression of, and to suppress fires on the lands to be occupied or used under the license. The Licensee shall be liable for and shall pay the costs incurred by the United States in suppressing fires caused from the construction, operation, or maintenance of the project works or of the works appurtenant or accessory thereto under the license.

*Article 28.* The Licensee shall interpose no objection to, and shall in no way prevent, the use by the agency of the United States having jurisdiction over the lands of the United States affected, or by persons or corporations occupying lands of the United States under permit, of water for fire suppression from any stream, conduit, or body of water, natural or artificial, used by the Licensee in the operation of the project works covered by the license, or the use by said parties of water for sanitary and domestic purposes from any stream, conduit, or body of water, natural or artificial, used by the Licensee in the operation of the project works covered by the license.

*Article 29.* The Licensee shall be liable for injury to, or destruction of, any buildings, bridges, roads, trails, lands, or other property of the United States, occasioned by the construction, maintenance, or operation of the project works or of the works appurtenant or accessory thereto under the license. Arrangements to meet such liability, either by compensation for such injury or destruction, or by reconstruction or repair of damaged property, or otherwise, shall be made with the appropriate department or agency of the United States.

*Article 30.* The Licensee shall allow any agency of the United States, without charge, to construct or permit to be constructed on, through, and across those project lands which are lands of the United States such conduits, chutes, ditches, railroads, roads, trails, telephone and power lines, and other routes or means of transportation and communication as are not inconsistent with the enjoyment of said lands by the Licensee for the purposes of the license. This license shall not be construed as conferring upon the Licensee any right of use, occupancy, or enjoyment of the lands of the United States other than for the construction, operation, and maintenance of the project as stated in the license.

*Article 31.* In the construction and maintenance of the project, the location and standards of roads and trails on lands of the United States and other uses of lands of the United States, including the location and condition of quarries, borrow pits, and spoil disposal areas, shall be subject to the approval of the department or agency of the United States having supervision over the lands involved.

*Article 32.* The Licensee shall make provision, or shall bear the reasonable cost, as determined by the agency of the United States affected, of making provision for avoiding inductive interference between any project transmission line or other project facility con-

structed, operated, or maintained under the license, and any radio installation, telephone line, or other communication facility installed or constructed before or after construction of such project transmission line or other project facility and owned, operated, or used by such agency of the United States in administering the lands under its jurisdiction.

*Article 33.* The Licensee shall make use of the Commission's guidelines and other recognized guidelines for treatment of transmission line rights-of-way, and shall clear such portions of transmission line rights-of-way across lands of the United States as are designated by the officer of the United States in charge of the lands; shall keep the areas so designated clear of new growth, all refuse, and inflammable material to the satisfaction of such officer; shall trim all branches of trees in contact with or liable to contact the transmission lines; shall cut and remove all dead or leaning trees which might fall in contact with the transmission lines; and shall take such other precautions against fire as may be required by such officer. No fires for the burning of waste material shall be set except with the prior written consent of the officer of the United States in charge of the lands as to time and place.

*Article 34.* The Licensee shall cooperate with the United States in the disposal by the United States, under the Act of July 31, 1947, 61 Stat. 681, as amended (30 U.S.C. sec. 601, *et seq.*), of mineral and vegetative materials from lands of the United States occupied by the project or any part thereof: *Provided*, That such disposal has been authorized by the Commission and that it does not unreasonably interfere with the occupancy of such lands by the Licensee for the purposes of the license: *Provided, further*, That in the event of disagreement, any question of unreasonable interference shall be determined by the Commission after notice and opportunity for hearing.

*Article 35.* If the Licensee shall cause or suffer essential project property to be removed or destroyed or to become unfit for use, without adequate replacement, or shall abandon or discontinue good faith operation of the project or refuse or neglect to comply with the terms of the license and the lawful orders of the Commission mailed to the record address of the Licensee or its agent, the Commission will deem it to be the intent of the Licensee to surrender the license. The Commission, after notice and opportunity for hearing, may require the Licensee to remove any or all structures, equipment and power lines within the project boundary and to take any such other action necessary to restore the project waters, lands, and facilities remaining within the project boundary to a condition satisfactory to the United States agency having jurisdiction over its lands or the Commission's authorized representative, as appropriate, or to provide for the continued operation and maintenance of nonpower facilities and fulfill such other obligations

under the license as the Commission may prescribe. In addition, the Commission in its discretion, after notice and opportunity for hearing, may also agree to the surrender of the license when the Commission, for the reasons recited herein, deems it to be the intent of the Licensee to surrender the license.

*Article 36.* The right of the Licensee and of its successors and assigns to use or occupy waters over which the United States has jurisdiction, or lands of the United States under the license, for the purpose of maintaining the project works or otherwise, shall absolutely cease at the end of the license period, unless the Licensee has obtained a new license pursuant to the then existing laws and regulations, or an annual license under the terms and conditions of this license.

*Article 37.* The terms and conditions expressly set forth in the license shall not be construed as impairing any terms and conditions of the Federal Power Act which are not expressly set forth herein.

FORM 1-6 (REVISED OCTOBER, 1975)

#### FEDERAL POWER COMMISSION

#### TERMS AND CONDITIONS OF LICENSE FOR UNCONSTRUCTED MAJOR PROJECT AFFECTING NAVIGABLE WATERS AND LANDS OF THE UNITED STATES

*Article 1.* The entire project, as described in this order of the Commission, shall be subject to all of the provisions, terms, and conditions of the license.

*Article 2.* No substantial change shall be made in the maps, plans, specifications, and statements described and designated as exhibits and approved by the Commission in its order as a part of the license until such change shall have been approved by the Commission: *Provided, however,* That if the Licensee or the Commission deems it necessary or desirable that said approved exhibits, or any of them, be changed, there shall be submitted to the Commission for approval a revised, or additional exhibit or exhibits covering the proposed changes which, upon approval by the Commission, shall become a part of the license and shall supersede, in whole or in part, such exhibit or exhibits theretofore made a part of the license as may be specified by the Commission.

*Article 3.* The project works shall be constructed in substantial conformity with the approved exhibits referred to in Article 2 herein or as changed in accordance with the provisions of said article. Except when emergency shall require for the protection of navigation, life, health, or property, there shall not be made without prior approval of the Commission any substantial alteration or addition not in conformity with the approved plans to any dam or other project works under the license or any substantial use of project lands and waters not authorized herein; and any emergency alteration, addition, or use so made shall thereafter

be subject to such modification and change as the Commission may direct. Minor changes in project works, or in uses of project lands and waters, or divergence from such approved exhibits may be made if such changes will not result in a decrease in efficiency, in a material increase in cost, in an adverse environmental impact, or in impairment of the general scheme of development; but any of such minor changes made without the prior approval of the Commission, which in its judgment have produced or will produce any of such results, shall be subject to such alteration as the Commission may direct.

Upon the completion of the project, or at such other time as the Commission may direct, the Licensee shall submit to the Commission for approval revised exhibits insofar as necessary to show any divergence from or variations in the project area and project boundary as finally located or in the project works as actually constructed when compared with the area and boundary shown and the works described in the license or in the exhibits approved by the Commission, together with a statement in writing setting forth the reasons which in the opinion of the Licensee necessitated or justified variation in or divergence from the approved exhibits. Such revised exhibits shall, if and when approved by the Commission, be made a part of the license under the provisions of Article 2 hereof.

*Article 4.* The construction, operation, and maintenance of the project and any work incidental to additions or alterations shall be subject to the inspection and supervision of the Regional Engineer, Federal Power Commission, in the region wherein the project is located, or of such other officer or agent as the Commission may designate, who shall be the authorized representative of the Commission for such purposes. The Licensee shall cooperate fully with said representative and shall furnish him a detailed program of inspection by the Licensee that will provide for an adequate and qualified inspection force for construction of the project and for any subsequent alterations to the project. Construction of the project works or any feature or alteration thereof shall not be initiated until the program of inspection for the project works or any such feature thereof has been approved by said representative. The Licensee shall also furnish to said representative such further information as he may require concerning the construction, operation, and maintenance of the project, and of any alteration thereof, and shall notify him of the date upon which work will begin, as far in advance thereof as said representative may reasonably specify, and shall notify him promptly in writing of any suspension of work for a period of more than one week, and of its resumption and completion. The Licensee shall allow said representative and other officers or employees of the United States, showing proper credentials, free and unrestricted access to, through, and across the project lands and project works in the perform-

JACK S. WAYLAND  
Director



STATE OF WASHINGTON  
DEPARTMENT OF GAME

600 North Capitol Way, GJ-11 • Olympia, Washington 98504-0091 • (206) 753-5700

June 12, 1987

Colonel Rogert F. Yankoupe  
District Engineer  
U.S. Army Corps of Engineers  
P.O. Box C-3755  
Seattle, WA. 98124

Dear Colonel Yankoupe:

I would like to clarify the Department of Game's (WDG) proposal for construction at our Aberdeen Hatchery to mitigate for lost steelhead caused by the construction of Wynoochee Dam. The WDG invested the federal funds (\$680,000) given to the State as per the Memorandum of Agreement (MOA) signed on July 28, 1977. As you are aware, the MOA stated that the money would be used to construct and operate such additional fish hatching and propagation facilities as may be required to produce a returning run of 1,700 adult steelhead and/or cutthroat over and above natural production downstream from Wynoochee Dam for the 100-year life of the agreement.

The invested funds have now increased to \$1.04 million. We would like to proceed with construction at our Aberdeen Hatchery enabling us to rear the required 170,000 steelhead smolts. Currently, the Wynoochee mitigation portion of production at Aberdeen accounts for approximately 1/3 of the total hatchery program. The mitigation production is hatched and reared primarily in State facilities.

We are proposing the construction of a new 64-trough hatchery building, five 80-foot raceways and an adult holding pond with fish ladder (see enclosure). Our engineers have informed me that space is very limited at Aberdeen and in order to provide a facility large enough to handle the federal mitigation as well as the normal state production, we must remove the old hatchery building and build a new one in its place. The existing hatchery building is so old that expansion is not a feasible option.

The five raceways needed to rear the majority of the Wynoochee steelhead will fit into the existing space but will decrease the size of the current parking lot. The adult holding pond is required to hold adult steelhead trucked from the Wynoochee trap. The fish ladder will enable adults returning directly to the hatchery to enter the holding pond. The pond is designed as double 10' x 70' structures so that mitigation fish may be held separately from state fish.

Colonel Yankoupe  
June 12, 1987  
Page Two

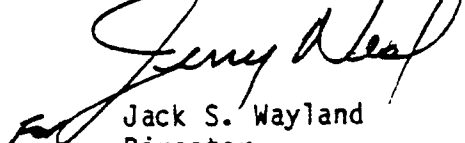
We realize that the proposed expansion will result in new facilities for state as well as mitigation fish. However, it is important to focus on the original intent of the Memorandum of Agreement which is to mitigate for lost adult steelhead and cutthroat to the Wynoochee River. I feel that this proposal will fulfill that objective and from an engineering and cost effective standpoint, is the most logical way to proceed.

We are aware that this construction will reduce the invested funds below a level that is necessary to provide continuous O&M. Therefore, in exchange for your support of our construction proposal, we are willing to commit to paying for operation and maintenance costs for the life of the project. This approach will provide a final solution for long-term mitigation which has been operating on an interim basis since 1977.

I hope you will look favorably upon our proposal and share our desire to expedite this matter. I look forward to hearing from you in the near future.

Sincerely,

THE DEPARTMENT OF GAME



Jack S. Wayland  
Director

JW:w  
Enclosure

cc: Jerry Neal  
Mike Kuttel  
Bob Dice  
Jim DeShazo  
Jim Gearheard  
Dave Gufler  
Gary Fenton  
Bob Paulson  
Bob Gerke, WDF

## ABERDEEN HATCHERY/WYNOOCHEE MITIGATION

### HATCHERY IMPROVEMENTS

#### PROJECT DESCRIPTION

Hatchery Building: 64 troughs with ability to expand to 112 troughs: support facilities include office, day room, work room/shop, storage, wet room, restroom and feed storage.

Raceways: (5) 10' x 80' raceways complete with piping and room to add one additional future raceway. The cleaning system is brush and flush waste to existing sediment pond.

Holding Pond: Double 10' x 70" holding pond with fish ladder and spawning shelter.

### ABERDEEN HATCHERY IMPROVEMENTS

#### COST ESTIMATE

1.	Demolition	7,650.00
2.	Excavation	6,411.00
3.	Fill	3,850.00
4.	Pipe Excavation & Backfill	2,275.00
5.	Hatchery Building	220,000.00
6.	Troughs	35,200.00
7.	Raceways (includes supply and drain pipe)	260,810.00
8.	Holding Pond & Fish Ladder	100,000.00
	Subtotal	636,196.00
	Engineering costs @ 10%	63,620.00
	Project Total	\$699,816.00

FINAL w/ SIGNATURES

DEPARTMENT OF GAME  
STATE OF WASHINGTON  
MEMORANDUM OF AGREEMENT

FOR CONSTRUCTION OF FISH HATCHERY FACILITIES  
FOR PREVENTION OF LOSSES OF NATURAL SPAWNING AREAS  
FOR ANADROMOUS TROUT  
OCCASIONED BY CONSTRUCTION OF WYNOOCHEE LAKE PROJECT

WYNOOCHEE LAKE PROJECT

U.S. ARMY ENGINEER DISTRICT, SEATTLE

CORPS OF ENGINEERS



THIS MEMORANDUM OF AGREEMENT, entered into this 28<sup>th</sup> day of July 1977, between the UNITED STATES OF AMERICA (hereinafter called the "Government"); represented by the Contracting Officer executing this agreement, and STATE OF WASHINGTON, Department of Game, (hereinafter called the "State");

WITNESSETH, that:

WHEREAS, the Government has, under authority of Public Law 876, 87th Congress (Flood Control Act), approved 23 October 1962, undertaken the development of a flood control project known as the Wynoochee Lake Project (hereinafter called the "Project"), and

WHEREAS, above Flood Control Act was AMENDED by Public Law 93-251, 93rd Congress, H.R. 10203, Section 47, dated 7 March 1974, "to provide that the Secretary of the Army, acting through the Chief of Engineers, is authorized and directed to transfer to the State of Washington, as part of project costs, an amount not to exceed \$696,000 for construction of fish hatchery facilities for prevention of losses of natural spawning areas for anadromous trout occasioned by project construction," and

WHEREAS, the Seattle District Corps of Engineers has been authorized to act for the Chief of Engineers to monitor the work by the State and to fund the State for the costs incurred.

WHEREAS, the Seattle District Corps of Engineers and the State mutually established that constructing and operating fish hatching and propagation facilities that will maintain a returning run of 1,700 steelhead and/or cutthroat adult fish, above natural production downstream from Wynoochee Dam, will satisfy the Corps' mitigation responsibility for inundation of spawning area by the reservoir.

NOW, therefore, in consideration of the faithful performance of each party of the mutual covenants and agreements hereinafter set forth, it is mutually agreed as follows:

#### ARTICLE 1. Character and Extent of Services.

The State shall:

a. Upon receipt of an amount not to exceed \$696,000, execute and furnish the Government a statement acknowledging that the Government has fulfilled its obligations under Section 47 of the Water Resources Development Act of 1974 and releasing and discharging the Government from further responsibilities for spawning losses that may have existed under the Fish and Wildlife Coordination Act as amended.



b. - Construct, within 2 years following receipt of funds, and operate such additional fish hatching and propagation facilities as may be required to produce a returning run of 1,700 steelhead and/or cutthroat adult fish over and above natural production downstream from Wynoochee Dam for the approximate 98 years of remaining life. Exhibit "A" is a cost estimate for constructing fish hatching and propagation facilities, estimate of annual operation and maintenance, and calculations showing sinking fund and interest rate to provide annual operation and maintenance funds. The relative numbers of each species so produced will be determined by the State on an annual basis.

c. With the exception of the costs of planning, designing, and constructing the necessary additional fish hatching and propagation facilities, less the prior authorized mitigation cost of \$16,000, deposit the remainder of the funding available and as herein provided for the specific purpose of insuring continued compliance with this agreement. These funds shall be invested in accordance with State Law 43.84.080 for the investment of such funds. These funds, plus the interest therefrom, will be used to provide a returning run of 1,700 adult fish originating from the funded rearing facility.

d. Transport and plant annually, the smolt steelhead and/or cutthroat trout in the Wynoochee River watershed, downstream from Wynoochee Dam.

e. Furnish the Government an annual report, starting with the first trout egg collection period after receipt of initial funding on 1 September of each year containing the following:

(1) Numbers and species of juvenile trout artificially propagated, transported and planted in the Wynoochee River watershed downstream from Wynoochee Dam.

(2) Available data on number of steelhead and cutthroat trout destined for spawning in Wynoochee River which are taken by fishermen.

(3) Available data on spawning escapement of game fish in Wynoochee River.

(4) The estimated number of returning fish originally produced by the plantings and other pertinent information.

## ARTICLE 2. Obligations of the Government.

In consideration of the performance of their undertakings, the Government will fund the State a lump sum amount not to exceed \$696,000, less the \$16,000 previously spent, at the time construction of hatchery facilities is initiated.



Article 3. Examination of Records by Comptroller General.

a. General. During the period covered by this Memorandum of Agreement, the Contracting Officer or his authorized representative shall be entitled to examine and audit the records of the State to insure that the funding provided hereunder is properly being used for the Congressionally authorized purpose and all books, records, and reports concerning the same shall be maintained by the State for a period of 3 years after expenditures are made therefrom. The Contracting Officer or his representatives shall have the audit and inspection rights described below.

b. The State agrees that the Comptroller General of the United States or any of his duly authorized representatives shall, until the expiration of 3 years after final payment under this contract or such lesser time specified in either Appendix M of the Armed Services Procurement Regulation or the Federal Procurement Regulations Part 1-20, as appropriate, have access to and the right to examine any directly pertinent books, documents, papers, and records of the State involving transactions related to this contract.

c. The State further agrees to include in all his subcontracts hereunder a provision to the effect that the subcontractor agrees that the Comptroller General of the United States or any of his duly authorized representatives shall, until the expiration of 3 years after final payment under the subcontract or such lesser time specified in either Appendix M of the Armed Services Procurement Regulation or the Federal Procurement Regulations Part 1-20, as appropriate, have access to and the right to examine any directly pertinent books, documents, papers, and records of such subcontractor, involving transactions related to the subcontract. The term "subcontract" as used in this clause excludes (i) purchase orders not exceeding \$2,500 (ii) subcontracts or purchase orders for public utility services at rates established for uniform applicability to the general public.

d. The periods of access and examination described in (b) and (c) above for records which relate to (i) appeals under the "Disputes" clause of this contract, (ii) litigation or the settlement of claims arising out of the performance of this contract, or (iii) costs and expenses of this contract as to which exception has been taken by the Comptroller General or any of his duly authorized representatives, shall continue until such appeals, litigation, claims or exceptions have been disposed of.

ARTICLE 4. Officials Not To Benefit.

No member of or delegate to Congress, or resident commissioner, shall be admitted to any share or part of this contract, or to any benefit that may arise therefrom; but this provision shall not be construed to extend to this contract if made with a corporation for its general benefit.

ARTICLE 5. Equal Opportunity.

During the performance of this contract, the State agrees as follows:

- a. The State will not discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin. The State will take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, color, religion, sex, or national origin. Such action shall include but not be limited to the following: employment, upgrading, demotion or transfer, recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; selection for training, including apprenticeship. The State agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided by the Contracting Officer setting forth the provisions of this nondiscrimination clause.
- b. The State will, in all solicitations or advertisements for employees placed by or on behalf of the State, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, or national origin.
- c. The State will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding a notice to be provided by the agency Contracting Officer, advising the labor union or workers' representative of the state's commitments under this Equal Opportunity clause and shall post copies of the notice in conspicuous places available to employees and applicants for employment.
- d. The State will comply with all provisions of Executive Order 11246 of September 24, 1965, as amended by Executive Order 11375 of October 13, 1967, and of the rules, regulations, and relevant orders of the Secretary of Labor.
- e. The State will furnish all information and reports required by Executive Order 11246 of September 24, 1965, as amended by Executive Order 11375 of October 13, 1967, and by the rules, regulations, and orders of the Secretary of Labor or pursuant thereto, and will permit access to his books, records, and accounts by the contracting agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.
- f. In the event of the State's noncompliance with the Equal Opportunity clause of this contract or with any of said rules, regulations, or orders this contract may be cancelled, terminated or suspended in whole or in part, and the State may be declared ineligible for further Government contracts in accordance with procedures authorized in Executive Order 11246 of September 24, 1965, as amended by Executive Order 11375 of October 13, 1967, and such other sanctions may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965, as amended by Executive Order 11375 of October 13, 1967, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.
- g. The State will include the provisions of paragraphs (a) through (g) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to Section 204 of Executive Order 11246 of September 24, 1965, as amended by Executive Order 11375 of October 13, 1967, so that such provisions will be binding upon each subcontractor or vendor. The State

will take such action with respect to any subcontract or purchase order as the contracting agency may direct as a means of enforcing such provisions including sanctions for noncompliance, provided; however, that in the event the State becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the contracting agency, the State may request the United States to enter into such litigation to protect the interests of the United States.

IN WITNESS WHEREOF, this Memorandum of Agreement has been executed by the State of Washington, by the Director, Department of Game, and the Government pursuant to their respective authority in law as of the day and year first above written.

THE UNITED STATES OF AMERICA

By

~~JOHN A. POTEAT~~

Colonel, Corps of Engineers  
U.S. Army, District Engineer  
Seattle District  
Contracting Officer

STATE OF WASHINGTON

By

Director, Department of Game

STATE OF WASHINGTON, )  
 ) ss.  
County of Thurston )

I, Saxton Tamm, hereby certify under oath that at the time of signature of the foregoing document I was an employee of the State of Washington, and that it is within my authorized capacity as Director of Department of Game to sign this document on behalf of the State of Washington.

Sworn to before me this 25<sup>th</sup> day of July 1977.

Marylou L. Olson  
Notary Public in and for the  
State of Washington, residing  
at Olympia, Wa.

## EXHIBIT A

## Wynoochee Lake Project

## Aberdeen Hatchery Expansion

1. Construction Cost Estimate: Four 20 feet by 80 feet raceways and an adult holding pond (1976).

<u>Feature or Item</u>	<u>Unit</u>	<u>Quantity</u>	<u>Unit Price</u>	<u>Amount</u>
Site preparation and stripping	Job	1	L.S.	\$ 2,000
Excavation	C.Y.	1,000	\$ 6.00	6,000
Concrete	C.Y.	215	250.00	53,750
Reinforcing	Lbs.	13,000	0.75	9,750
Form Work	S.F.	6,000	3.50	21,000
Screens & Frame	Ea.	11	500.00	5,500
Concrete block building	Deleted			- - - -
Electrical	Job	1	L.S.	12,000
Mechanical	Job	1	L.S.	84,000
Weir Lumber	B.F.	1,350	1.50	2,700
Misc. Metal	Job	1	L.S.	16,650
Automatic Feeders		8	1,250.00	10,000
Gravel, fine grading & landscaping	Job	1	L.S.	6,650
Water Pollution Control Facilities (settling pond)				
SUBTOTAL				<u>50,000</u> 280,000
*Pump & Pump station to return water to Lake Aberdeen				<u>37,000</u> 317,000
+ 15% Engineering Contingencies				<u>47,500</u> 364,500
Supervision & Administration				<u>10,000</u> 374,500

\*The pumps and pump station may not be required. Negotiation with Aberdeen for cost of water will determine if pump station is required.

# EXHIBIT A

## Wynoochee Lake Project

### Aberdeen Hatchery Expansion

#### 2. Operation and Maintenance estimate -- 1976 costs

<u>Item</u>	<u>Cost</u>
Labor: One hatchery assitant	\$11,400
Salary benefits: 18% of salaries	2,050
Fish Food: 54,000 lbs. annually (25 cents per pound; 1.8 pounds equals one pound fish)	13,500
Utilities	1,440
Building and Equipment Maintenance	300
Pysiological Expenses (disease control)	200
Office Supplies	100
Fish Planting costs: (3,000 miles at 30 cents per mile)	900
Water: At present cost 50 cents per million gallons a day (6.5 million gallons a day)*	<u>1,190</u>
TOTAL	31,080

\* The Department of Game is negotiating with the City of Aberdeen to supply the required additional water for expansion. Present rate is 50 cents per million gallons a day as reported, this cost may change. If Aberdeen will not provide water at a cost near 50 cents per million gallons a day the Department of Game will build at the alternative site. This is shown as Exhibit A-1.



## EXHIBIT A-1

## Wynoochee Lake Project

## Rearing Pond - at Wynoochee Dam

## 1. Construction Cost - Rearing Pond and one Raceway (March 1977 cost)

<u>Feature or Item</u>	<u>Unit</u>	<u>Quantity</u>	<u>Unit Price</u>	<u>Amount</u>
Earthwork and Grading including surfacing	Job	1	\$ 40,000	\$ 40,000
10 x 80 Raceway (including Head Box)		1	32,000	32,000
Truck and Feeder		1	10,000	10,000
Ten by 40 Trap		1	16,200	16,200
Flashboard River Outlet		1	4,500	4,500
Residence and Storage Building		leach	52,500	<u>52,500</u> \$155,200
Engineering - Contingency				<u>23,300</u> 178,500
Gravity Water Supply (including 32% contingency) Corps of Engineers estimate				<u>159,000</u> 337,500 <u>10,000</u>
Supervision and Administration				\$347,500

# EXHIBIT A-1

## Wynoochee Lake Project

### Rearing Pond at Wynoochee Dam

2.- Operation and Maintenance estimate (March 1977 cost)

<u>Item</u>	<u>Cost</u>
Labor: Hatchery Manager:	\$14,500
Relief Man: 2 days weekly	<u>5,000</u>
Subtotal	19,500
Salary Benefits: 18% of salaries	<u>3,500</u>
	23,000
Fish Food: 54,000 lbs. annually (25 cents a pound, 1.8 lbs. equals one pound of fish)	13,500
Utilities:	1,400
Building and Equipment Maintenance	300
Pysiological Expenses (disease control)	200
Office Supplies	100
Fish Planting costs: (500 miles at 30 cents a mile)	150
Pick-up Truck and Feeder 10,000 replacement cost at 1,000 annually = 10,000	1,000
TOTAL	<u>\$39,650</u>